# Mathematics

## Grade 1

**Based on Single National Curriculum 2020**

**One Nation, One Curriculum**

Punjab Curriculum and Textbook Board, Lahore

بِسۡمِ اللّٰہِ الرَّحۡمٰنِ الرَّحِیۡمِ

(In the Name of Allah, the Most Compassionate, the Most Merciful)

# Mathematics

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TEXTBOOK BOARD, LAHORE

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**Experimental Edition**

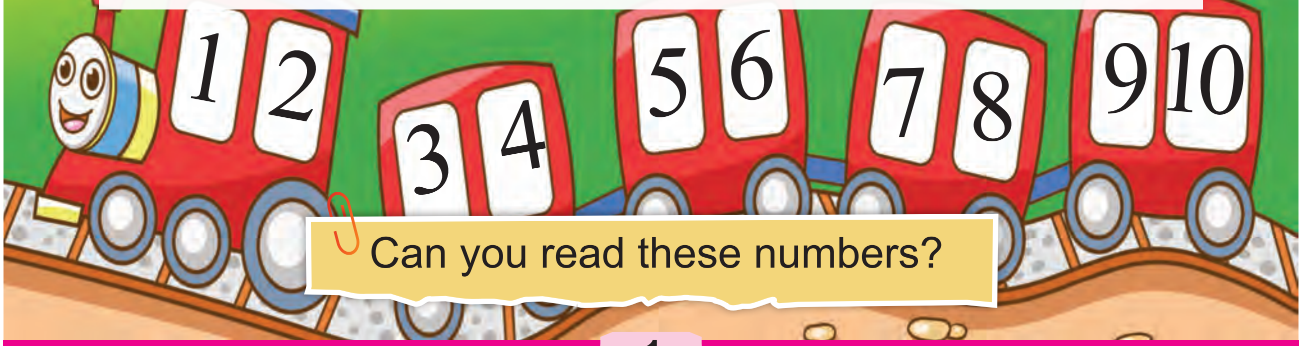
# Unit 1

# Whole Numbers

## Learning Outcomes

After completing this unit, you will be able to:

- Identify numbers 1-9.
- Identify 0 as a number.
- Read numbers up to 9 in numerals and in words.
- Write numbers up to 9 in numerals and in words.
- Count objects up to 9 and represent in numerals.
- Match numbers 0-9 with objects.
- Count backwards from 9.
- Arrange numbers in ascending and descending order (up to 9).
- Identify which number (up to 9) comes:
  - Before and after a given number.
  - Between two given numbers.
- Identify 10 as a 2-digit number.
- Compare and order the numbers 0-10.
- Read numbers up to 99.
- Write numbers up to 99.
- Count forward and backward up to 99.
- Recognize the place value of a specific digit in a 2-digit number (tens and ones).
- Identify the place value of the specific digit in a 2-digit number.
- Decompose a number up to 99 to identify the value of a number in tens and ones place.
- Compare 1-digit and 2-digit numbers.
- Order the set of numbers from 0 to 99 in ascending and descending order.
- Identify which number (up to 99) comes:
  - Before and after a given number.
  - Between two given numbers.
- Count in tens and recognize 100 as a 3-digit number.
- Identify and write missing numbers in a sequence from 1 to 100.
- Count and write numbers of objects in a given set.
- Identify the position of objects using ordinal numbers such as first, second, …, tenth, including representations 1st, 2nd, …,10th through pictures.
- Compare two or more groups of objects in terms of numbers.
- Match objects having one - to - one correspondence.
- Identify the number of objects in two groups to show “more than” and “less than”.

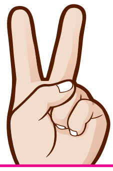
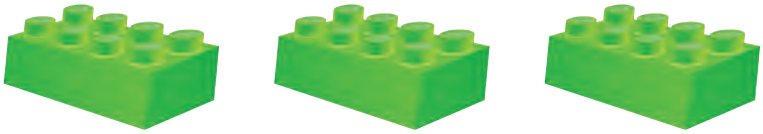
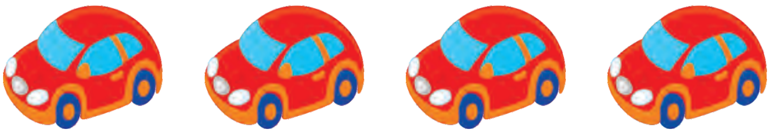
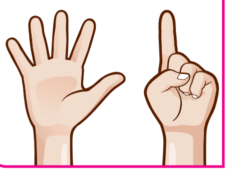


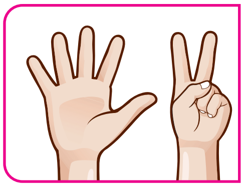
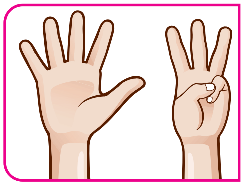
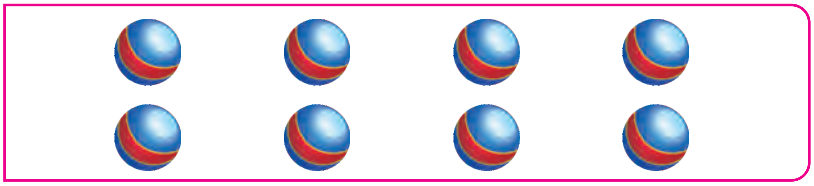
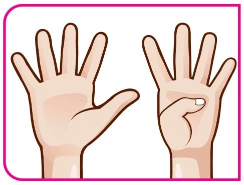

Can you read these numbers?

# Counting 1 to 9

I have a lot of toys.
Can you help me to
count them?

Let's count and read.

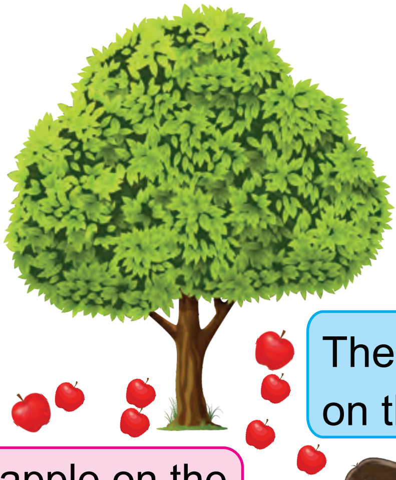
| | | |
|---|---|---|
| | 1 | |
|  | 2 | |
| | 3 |  |
| | 4 |  |
| | 5 | |
|  | 6 | |

| | | |
|---|---|---|
|  | 7 | |
|  | 8 |  |
|  | 9 | |

## Concept of Zero "0"

0

How many apples are there on the tree?



There is no apple on the tree.

There is no apple on the tree. It means there are zero "0" apples.

**Key Fact**

Zero (0) means "nothing".

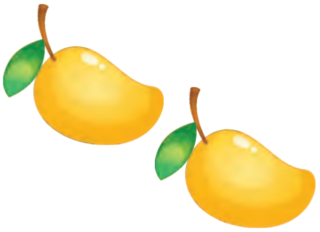
**Try Yourself**

Think! how many fingers do you have?

TEACHING POINT

Ask students to work in groups. Give each group 0 to 9 number cards. Show different number of objects. Ask each group to show the correct number card one by one. Repeat this activity several times with different numbers and objects.

Count and read.

| | | |
|---|---|---|
| | |  |
| 0 | 1 | 2 |

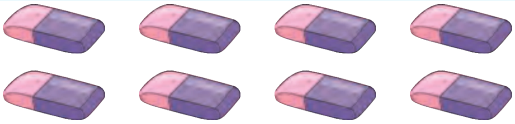
## Counting

Let's count the objects and read.

| | | |
|---|---|---|
| zero | | 0 |
| one | | 1 |
| two | | 2 |
| three | | 3 |
| four | | 4 |
| five | | 5 |
| six | | 6 |
| seven | | 7 |

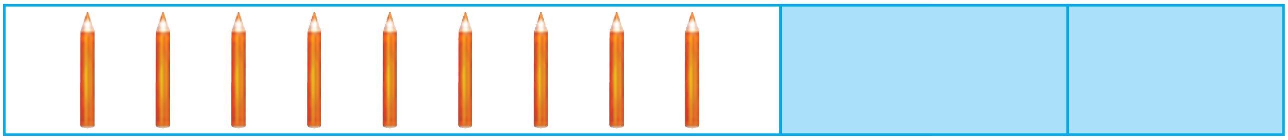
| | | |
|---|---|---|
| eight | | 8 |
| nine | | 9 |

Count the objects and write in numerals and words.

| | 0 | zero |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
|  | | |

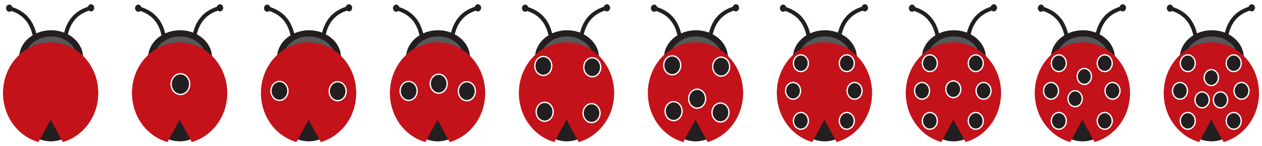
TEACHING POINT

Hang a number wall chart (0 to 9) in the classroom. Then ask the students to read aloud. Also explain to the students about whole numbers from zero(0).



## Forward Counting

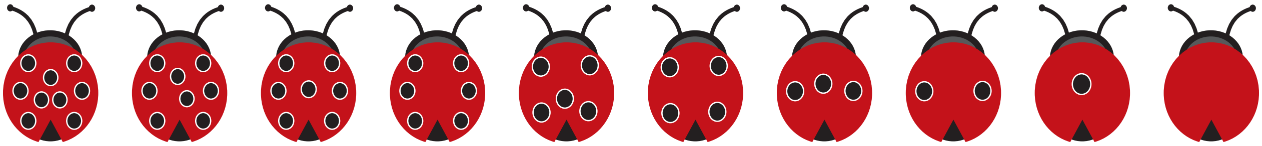
Let's count the dots in the pictures below and read forward counting from 0 to 9.



0 1 2 3 4 5 6 7 8 9

## Backward Counting

Let's count the dots in the pictures below and read backward counting from 9 to 0.

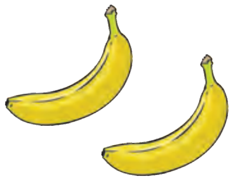


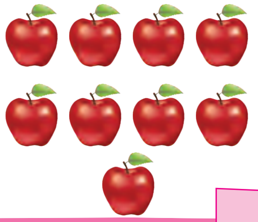
9 8 7 6 5 4 3 2 1 0

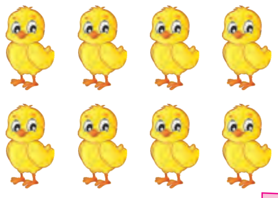
TEACHING POINT

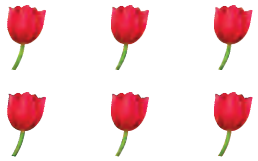
Place number cards (0 to 9) randomly on the table. Call a student and ask him/her to put the number cards in order on the table. Then ask him/her to count forward (0 to 9) and count backward (9 to 0).

Count the objects and write the correct number in the boxes.

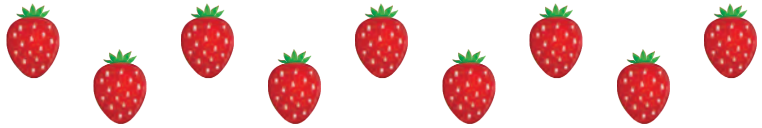






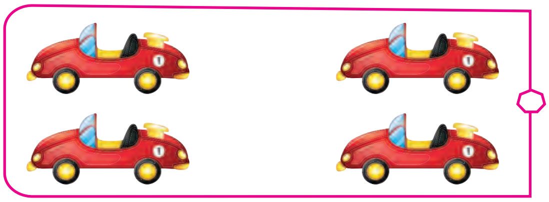


Count the objects and encircle the correct number.

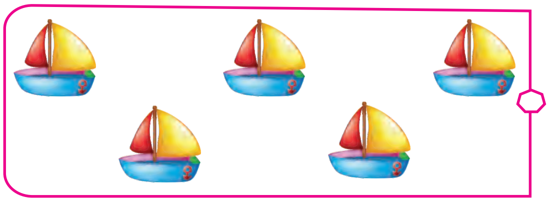
| | | | |
|---|---|---|---|
| | 5 | 7 | 6 |
|  | 8 | 0 | 9 |
| | 7 | 8 | 9 |

## Count the objects and match with the correct number.

4

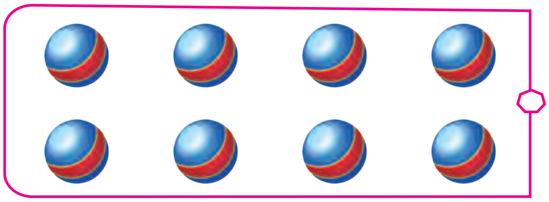


0



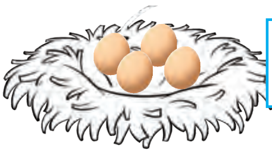
8

5



7

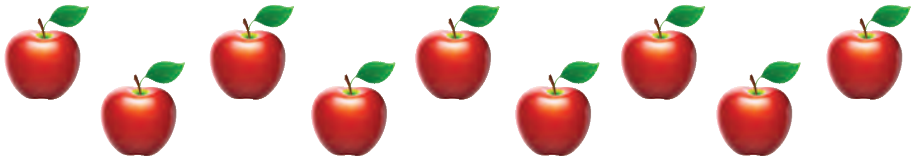
## Write the number of eggs in the boxes besides the nests.



## Count the objects and colour the correct number.

| 5 | 4 | 3 |
|---|---|---|

| 6 | 7 | 5 |
|---|---|---|



| 8 | 7 | 9 |
|---|---|---|

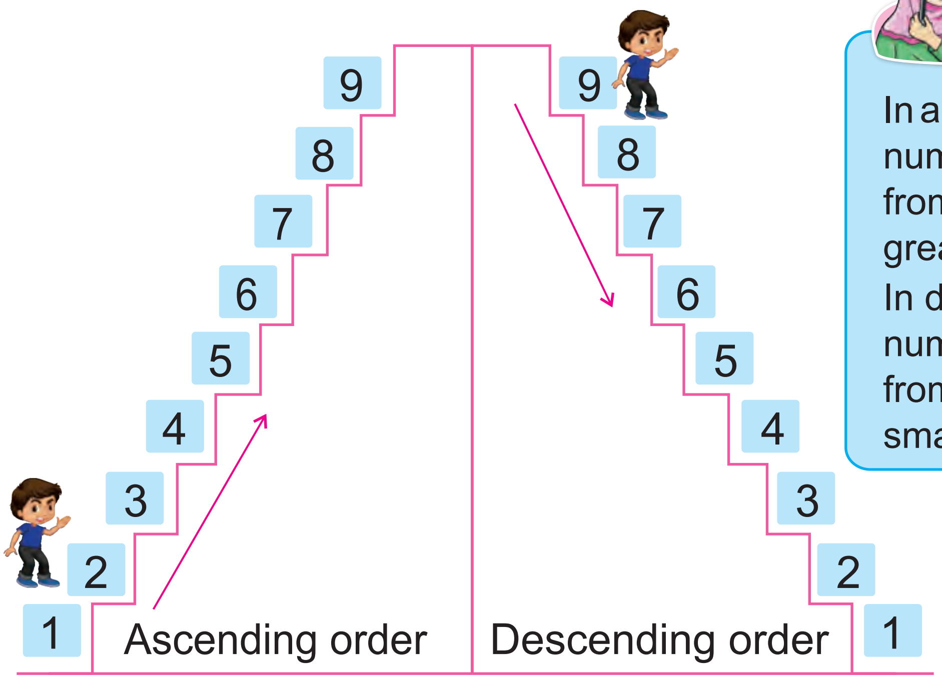
## Count forward and write the missing numbers.

| 0 | | 2 | | | 5 | | | | 9 |
|---|---|---|---|---|---|---|---|---|---|

## Count backward and write the missing numbers.

| 9 | | | 6 | | | | | | 0 |
|---|---|---|---|---|---|---|---|---|---|

# Ordering Numbers



**Key Fact**

In an ascending order, numbers are arranged from the smallest to the greatest.
In descending order, numbers are arranged from the greatest to the smallest.

## Write the following numbers in an ascending order:

| | | |
|---|---|---|
| 4 | 0 | 5 |
| | | |

| | | |
|---|---|---|
| 1 | 4 | 3 |
| | | |

## Write the following numbers in descending order:

| | | |
|---|---|---|
| 4 | 7 | 3 |
| | | |

| | | |
|---|---|---|
| 7 | 9 | 8 |
| | | |

TEACHING POINT: Write more than two numbers on the writing board and ask the students which number is the greatest or the smallest. Then ask them to arrange these numbers in an ascending and descending order.

# Before, After and Between

There are three number cards in the basket. Can you help me to arrange these cards in an ascending order?

1 comes before 2.

2 comes after 1.

2 comes before 3.

3 comes after 2.

2 comes between 1 and 3.

Therefore, we can arrange these cards in this way.

## Try Yourself

Which numbers come before and after 4?

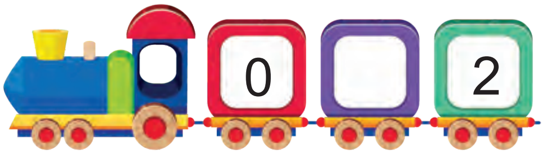
TEACHING POINT

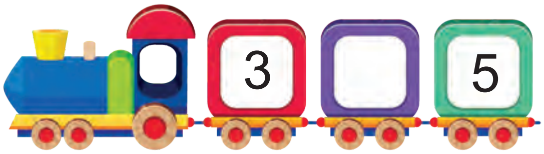
Place some number cards upside down on the table. Call any student in front of the class and ask him/her to pick up any number card. Then ask which numbers come before and after that number.

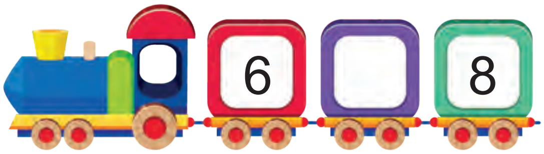
Write the number that comes before the given number.

Write the number that comes after the given number.

Write the number that comes between the given numbers.

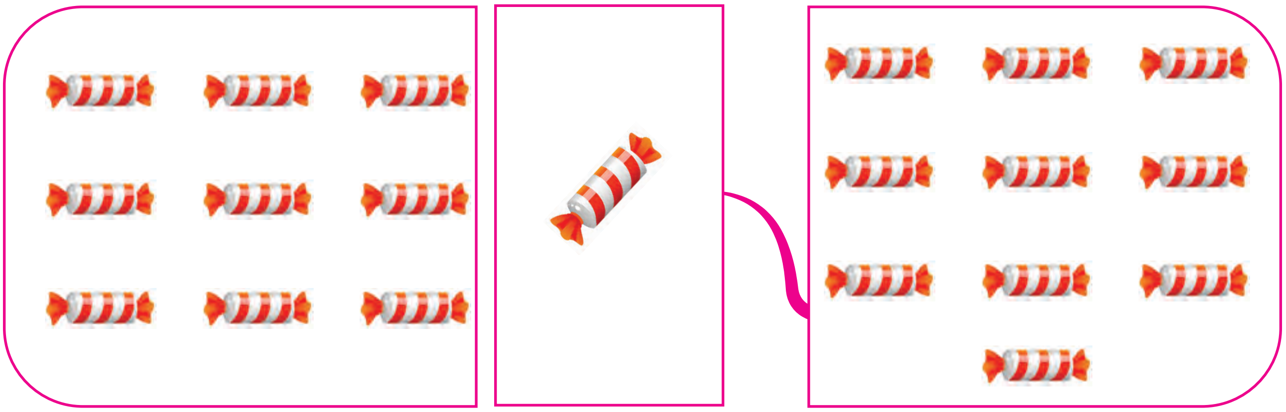


# Concept of Ten "10"

I have 9 candies. When I add 1 more candy to 9 candies, I have 10 candies.



9 candies | 1 candy | 10 candies

**Key Fact**

10 is the first 2-digit number.

**Try Yourself**

- Which number comes after 9?
- Which number comes before 10?

TEACHING POINT: Show the students a large-sized flash card with the number 10 written on it. Paste a number chart from 0 to 10 on the writing board and ask the students to find the number 10 on it.

# Place Value (Tens and Ones)

I have 9 pencils. If I add 1 more pencil, I will have 10 pencils.

9 ones

1 one

10 ones

Now, I have 1 bundle of 10 pencils only. It means there is 1 ten and 0 ones.

1 ten

**Key Fact**

10 ones make 1 ten.

10 ones = 1 ten

**Key Fact**

2-digit number consists of ones and tens.

| 1 | 0 |
|---|---|
| | |
| 1 ten | 0 ones |

1 ten and 0 ones = 10

Place pencils or ice-cream sticks on the table. Ask any student to count 10 pencils or ice-cream sticks. Then give him/her a rubber band and ask him/her to make a bundle of 10 pencils or ice-cream sticks.

# Numbers 1-10

Count the objects and read the numbers.

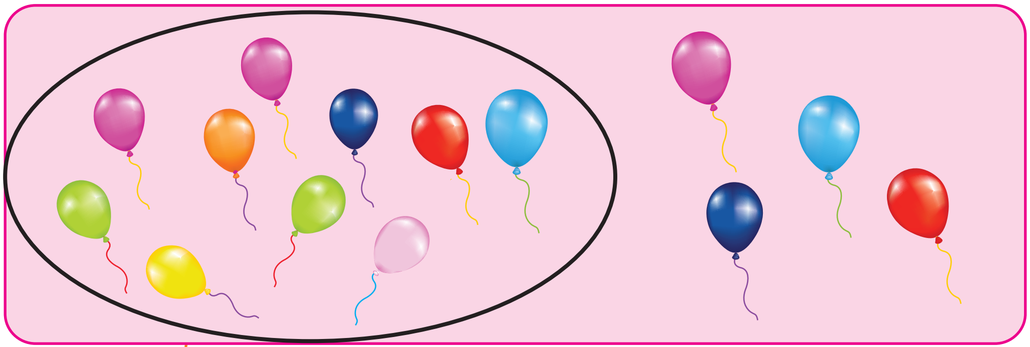
**Key Fact**

Numbers 0 to 9 are 1-digit numbers.
9 is the greatest 1-digit number.

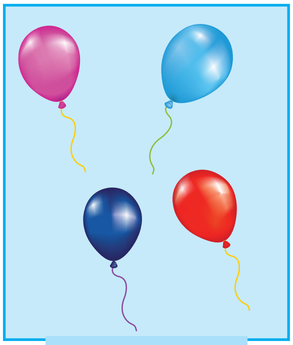
| | Tens | Ones |
|---|---|---|
| | | 1 |
| | | 2 |
| | | 3 |
| | | 4 |
| | | 5 |
| | | 6 |
| | | 7 |
| | | 8 |
| | | 9 |
| | 1 | 0 |

I have 14 balloons.

Let's encircle 10 balloons to make a bundle.



1 ten



4 ones

Now, I have 1 bundle of 10 balloons and 4 more balloons.

1 ten and 4 ones = 14

I have 2 bundles of 10 pencils each and 8 more pencils.

2

8

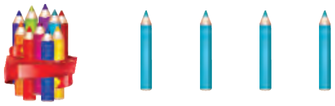
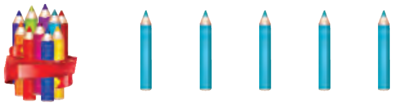
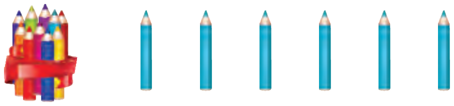
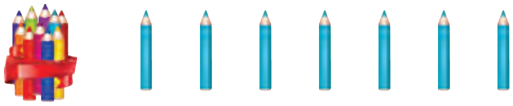
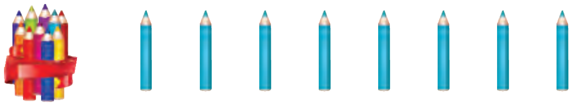
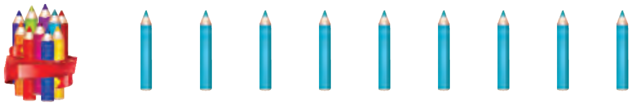
2 tens and 8 ones = 28

TEACHING POINT

Place 25 beads and 2 glasses on the table. Ask the students to make groups of tens using a glass. There are 2 glasses of tens and 5 beads separately. Explain to the students that 2 tens represent number 20 and each separate bead represents ones. So, 2 tens and 5 ones make 25. Repeat this activity for different numbers.

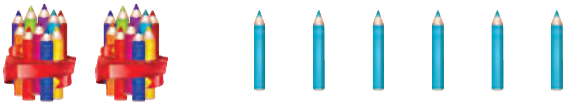
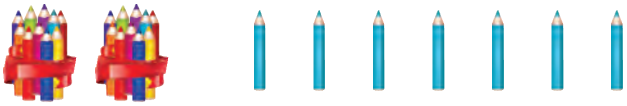
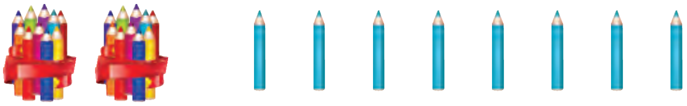
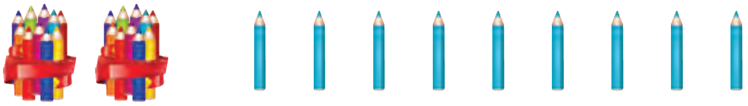
# Numbers 11 - 20

Read numbers with the help of ones and tens.

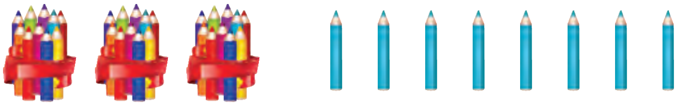
| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 1 | 1 | 11 |
| | 1 | 2 | 12 |
| | 1 | 3 | 13 |
|  | 1 | 4 | 14 |
|  | 1 | 5 | 15 |
|  | 1 | 6 | 16 |
|  | 1 | 7 | 17 |
|  | 1 | 8 | 18 |
|  | 1 | 9 | 19 |
| | 2 | 0 | 20 |

# Numbers 21 - 30

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 2 | 1 | 21 |
| | 2 | 2 | 22 |
| | 2 | 3 | 23 |
| | 2 | 4 | 24 |
| | 2 | 5 | 25 |
|  | 2 | 6 | 26 |
|  | 2 | 7 | 27 |
|  | 2 | 8 | 28 |
|  | 2 | 9 | 29 |
| | 3 | 0 | 30 |

# Numbers 31 - 40

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 3 | 1 | 31 |
| | 3 | 2 | 32 |
| | 3 | 3 | 33 |
| | 3 | 4 | 34 |
| | 3 | 5 | 35 |
| | 3 | 6 | 36 |
| | 3 | 7 | 37 |
|  | 3 | 8 | 38 |
| | 3 | 9 | 39 |
| | 4 | 0 | 40 |

# Numbers 41 - 50

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 4 | 1 | 41 |
| | 4 | 2 | 42 |
| | 4 | 3 | 43 |
| | 4 | 4 | 44 |
| | 4 | 5 | 45 |
| | 4 | 6 | 46 |
| | 4 | 7 | 47 |
| | 4 | 8 | 48 |
| | 4 | 9 | 49 |
| | 5 | 0 | 50 |

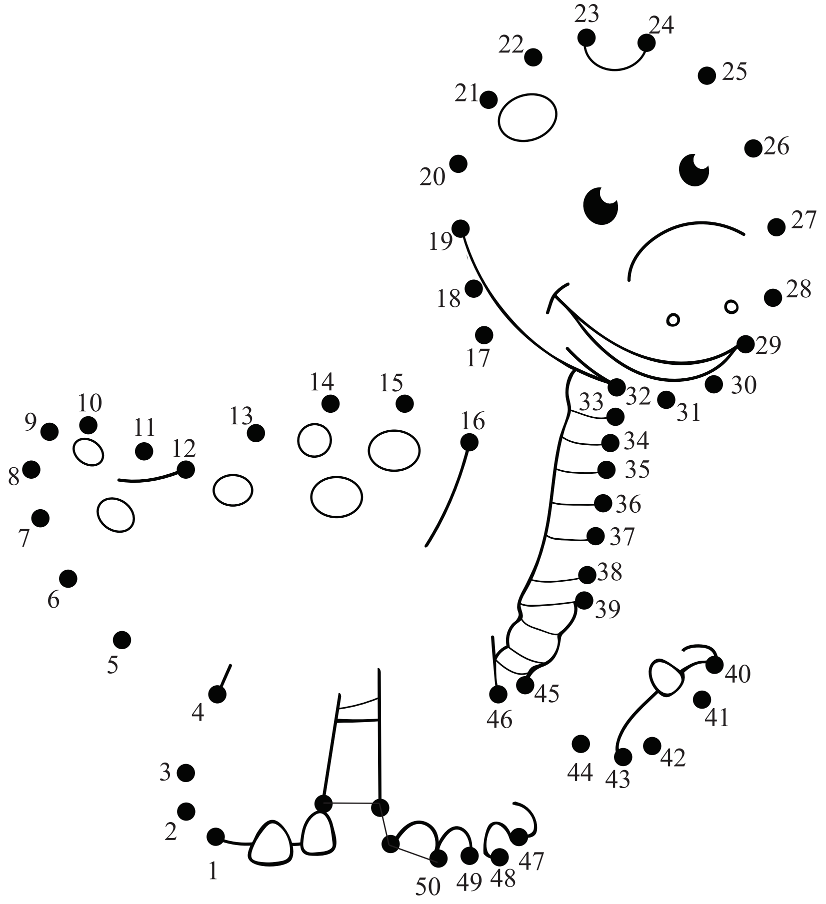
## Fill in the boxes.

| | | | | | |
|---|---|---|---|---|---|
| | | 3 | | | |
| | 7 | | | | |
| | | | 15 | | |
| | | 20 | | 22 | |
| | 25 | | 27 | | |
| | | 32 | | | 35 |
| | | | 39 | | |
| | 43 | | | 46 | |
| | | | 50 | | |

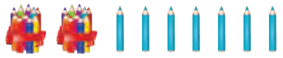
## Write the number that comes between the given numbers.

| | | | | | |
|---|---|---|---|---|---|
| 13 | | 15 | 28 | | 30 |
| 39 | | 41 | 46 | | 48 |
| 17 | | 19 | 23 | | 25 |
| 36 | | 38 | 44 | | 46 |

## Complete the picture by joining the dots and colour it.




## Write the numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 1 | 4 | 14 |
|  | | | |
| | | | |
| | | | |
| | | | |

# Numbers 51 - 60

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 5 | 1 | 51 |
| | 5 | 2 | 52 |
| | 5 | 3 | 53 |
| | 5 | 4 | 54 |
| | 5 | 5 | 55 |
| | 5 | 6 | 56 |
| | 5 | 7 | 57 |
| | 5 | 8 | 58 |
| | 5 | 9 | 59 |
| | 6 | 0 | 60 |

# Numbers 61 - 70

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 6 | 1 | 61 |
| | 6 | 2 | 62 |
| | 6 | 3 | 63 |
| | 6 | 4 | 64 |
| | 6 | 5 | 65 |
| | 6 | 6 | 66 |
| | 6 | 7 | 67 |
| | 6 | 8 | 68 |
| | 6 | 9 | 69 |
| | 7 | 0 | 70 |

# Numbers 71 - 80

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 7 | 1 | 71 |
| | 7 | 2 | 72 |
| | 7 | 3 | 73 |
| | 7 | 4 | 74 |
| | 7 | 5 | 75 |
| | 7 | 6 | 76 |
| | 7 | 7 | 77 |
| | 7 | 8 | 78 |
| | 7 | 9 | 79 |
| | 8 | 0 | 80 |

# Numbers 81 - 90

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 8 | 1 | 81 |
| | 8 | 2 | 82 |
| | 8 | 3 | 83 |
| | 8 | 4 | 84 |
| | 8 | 5 | 85 |
| | 8 | 6 | 86 |
| | 8 | 7 | 87 |
| | 8 | 8 | 88 |
| | 8 | 9 | 89 |
| | 9 | 0 | 90 |

# Numbers 91 - 99

Read numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 9 | 1 | 91 |
| | 9 | 2 | 92 |
| | 9 | 3 | 93 |
| | 9 | 4 | 94 |
| | 9 | 5 | 95 |
| | 9 | 6 | 96 |
| | 9 | 7 | 97 |
| | 9 | 8 | 98 |
| | 9 | 9 | 99 |

## Write the numbers with the help of ones and tens.

| Bundles & Pencils | Tens | Ones | Numbers |
|---|---|---|---|
| | 5 | 9 | 59 |
| | | | |
| | | | |

## Write the number that comes between the given numbers.

54 ___ 56

66 ___ 68

79 ___ 81

95 ___ 97

## Write ones and tens for the following numbers:

| Tens | Ones |
|---|---|
| | |
| 57 | |

| Tens | Ones |
|---|---|
| | |
| 64 | |

| Tens | Ones |
|---|---|
| | |
| 75 | |

| Tens | Ones |
|---|---|
| | |
| 99 | |

## Fill in the blanks.

5 tens and 0 ones ______

9 tens and 8 ones ______

9 tens and 9 ones ______

6 tens and 5 ones ______

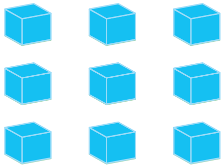
7 tens and 0 ones ______

8 tens and 1 one ______

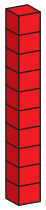
# Comparing Numbers

I have two different number cards. Can you help me to choose the number card with greater number? 10 9

## Let's compare 9 and 10.



9 ones = 9



1 ten = 10 ones

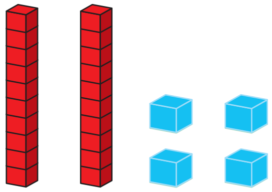
**Key Fact**

2-digit number is greater than 1-digit number.

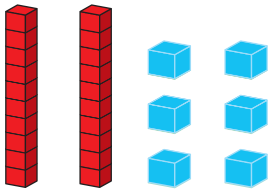
9 is the 1-digit number. 10 is the 2-digit number.

So, 10 is greater than 9.

## Let's compare 24 and 26.



2 tens and 4 ones = 24



2 tens and 6 ones = 26

In 24 and 26, both digits at tens place are the same. Therefore, we compare the digits at the ones place.

6 is greater than 4. So, 26 is greater than 24.

Write "smaller than" or "greater than" in the blanks.

5 is ____________________ 6.
21 is ____________________ 18.
29 is ____________________ 34.
80 is ____________________ 70.
92 is ____________________ 88.

**Try Yourself**

Which number is greater 30 or 39?

Compare and colour the box with greater number.

| | | | | | |
|---|---|---|---|---|---|
| 9 | 4 | 19 | 21 | 43 | 33 |
| 57 | 69 | 88 | 79 | 99 | 90 |

Compare and colour the box with smaller number.

| | | | | | |
|---|---|---|---|---|---|
| 17 | 23 | 35 | 46 | 53 | 51 |
| 68 | 70 | 89 | 86 | 97 | 91 |

## Ordering Numbers

Let's arrange the numbers 47, 33, 54 in an ascending and descending order.

| | Tens | Ones |
|---|---|---|
| 4 tens and 7 ones = | 4 | 7 |
| 3 tens and 3 ones = | 3 | 3 |
| 5 tens and 4 ones = | 5 | 4 |

3 tens are the smallest than 4 tens and 5 tens.

So, 33 is the smallest number.

Similarly,

5 tens are the greatest than 3 tens and 4 tens.

So, 54 is the greatest number.

Ascending order: 33, 47, 54 Descending order: 54, 47, 33

Write these numbers in descending order.

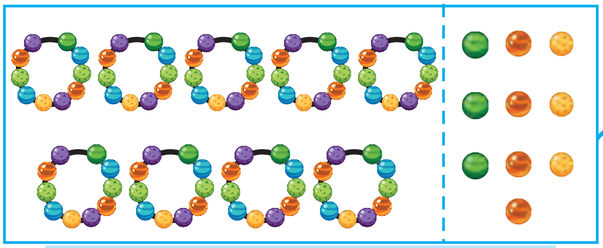
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | 7 | 8 | 5 | | | | |
| 18 | 16 | 17 | 15 | | | | |
| 24 | 26 | 27 | 25 | | | | |
| 71 | 74 | 73 | 72 | | | | |

TEACHING POINT: Give different number cards to the students and ask them to work in groups. Ask them to compare the numbers and arrange them in an ascending and descending order.

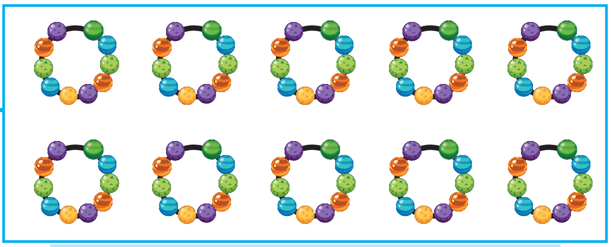
# Concept of Hundred "100"

When we add 1 more to 99, what do we get?

When we add 1 more to 99, it becomes100.



9 tens and 10 ones =100



10 tens = 100

One hundred = 100

91 → 92 → 93 → 94 → 95 → 96 → 97 → 98 → 99 → 100

100 comes after 99.

## Try Yourself

Which number comes before 100?

TEACHING POINT: Give beads of different colours to the students and instruct them to make ten groups of ten beads. Ask them how many tens are there in one hundred?

## Key Fact

- 99 is the greatest 2-digit number.
- First 3-digit number is 100.

# Count in Tens

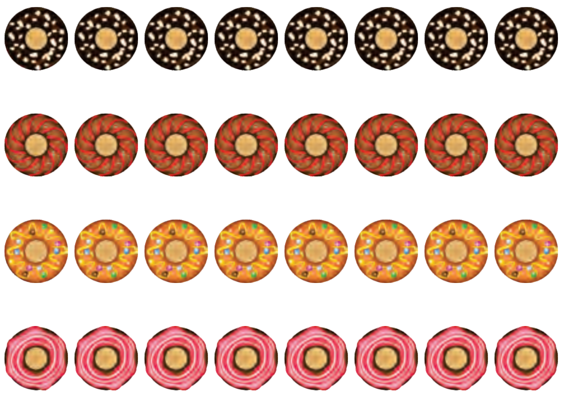
Count in tens and read.

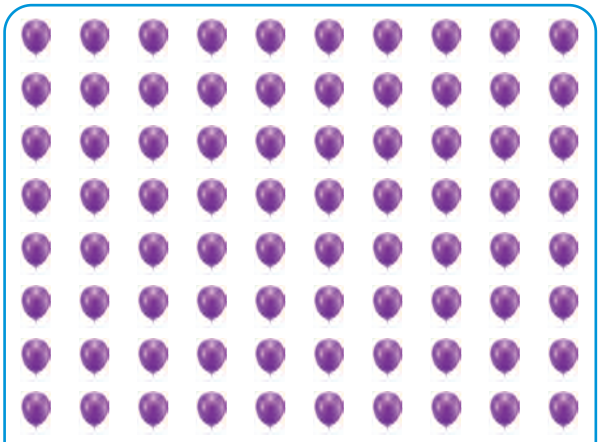
| Bundles & Pencils | Numbers |
|---|---|
| | 1 ten = 10 |
| | 2 tens = 20 |
| | 3 tens = 30 |
| | 4 tens = 40 |
| | 5 tens = 50 |
| | 6 tens = 60 |
| | 7 tens = 70 |
| | 8 tens = 80 |
| | 9 tens = 90 |
| | 10 tens = 100 |

Write the missing numbers in the given boxes.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2 | | | 5 | | 7 | | 9 | |
| 11 | | | | | 16 | | 18 | | 20 |
| | 22 | | | 25 | | | 28 | | |
| | 32 | | | | 36 | | | | 40 |
| 41 | 42 | | | 45 | | 47 | 48 | | |
| | 52 | | | | 56 | | 58 | | 60 |
| 61 | | | | 65 | | | | 69 | |
| | 72 | | | 75 | | | 78 | 79 | |
| | 82 | | 84 | | | 87 | | | 90 |
| 91 | | | | | 96 | | 98 | | |

Count the objects and write the correct number in the box.





# Ordinal Numbers

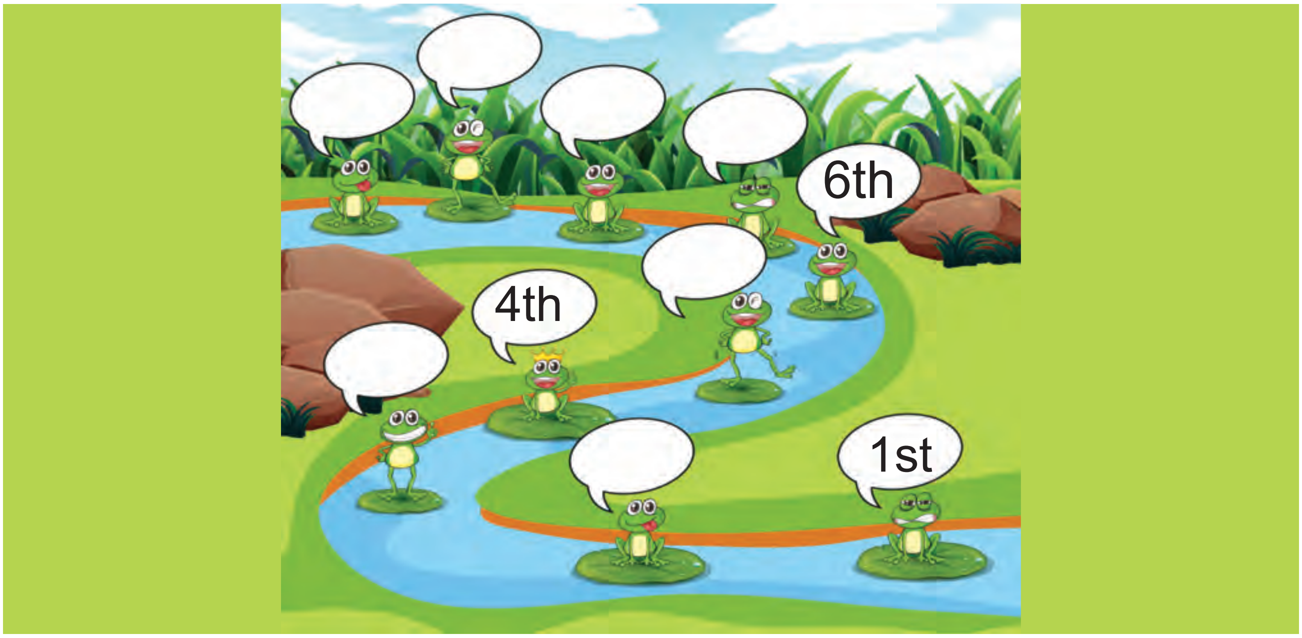
In the given picture, children are running a race.
With the help of ordinal numbers, we can tell the position of each child.

## Key Fact

Ordinal numbers are used to place objects in an order and to identify their correct position.

TEACHING POINT: Place ten toys (with ordinal number tags) on the table. Ask the students to arrange the toys on the table from right to left.

Write the ordinal number for each frog.

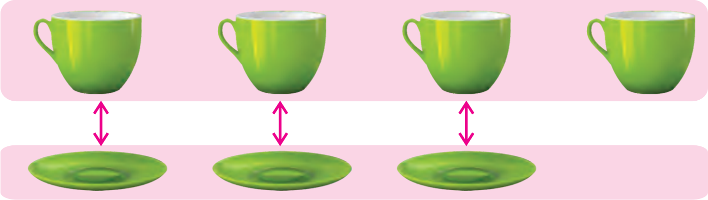



Encircle the owls that are at 2nd, 6th and 8th positions (from right to left).

## One-to-One Correspondence

Which is more in number, cups or plates?

Let's match cups and plates below.



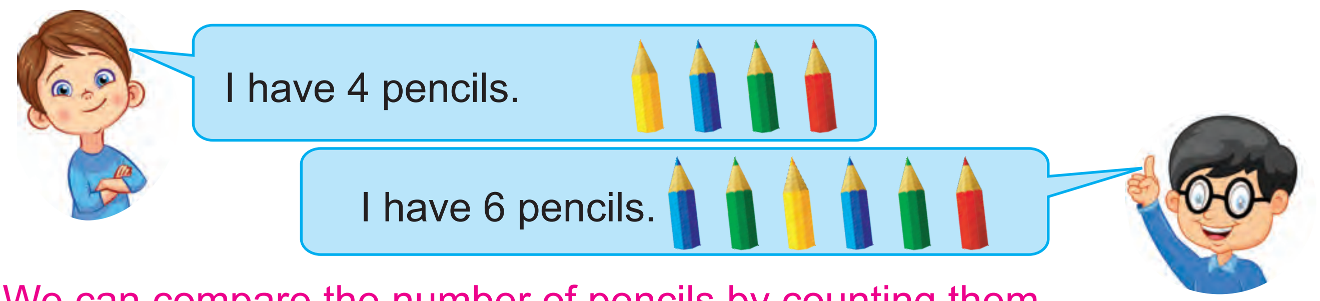
There are 4 cups and 3 plates.
4 is greater than 3.
3 is smaller than 4.

So, there are more cups and less plates.

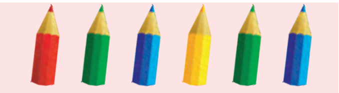
Match the objects having one-to-one correspondence and write less or more in the empty boxes.

**TEACHING POINT:** Give the students different groups of objects. Ask them to match these objects in one-to-one correspondence and tell which group has more objects and which one has less objects?

## Comparing Objects




We can compare the number of pencils by counting them.

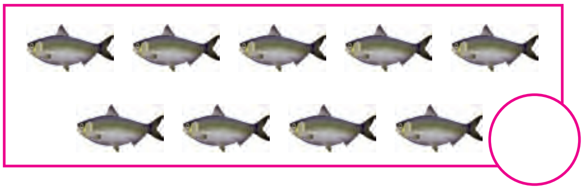


6

4

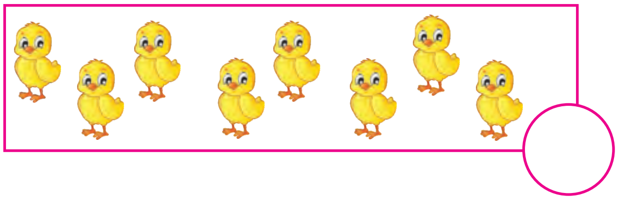
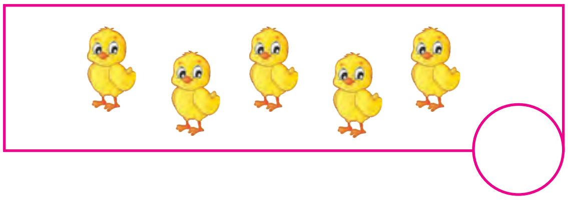
6 pencils are more than 4 pencils. So, 6 is greater than 4.

Tick (✓) the box which has more objects and fill in the blanks.



So, 7 is ________ than 9.

**TEACHING POINT:** Provide different number of objects to the students. Ask them to compare the objects and tell which objects are more and which objects are less?

So, 8 is ________ than 5.

## I have learnt

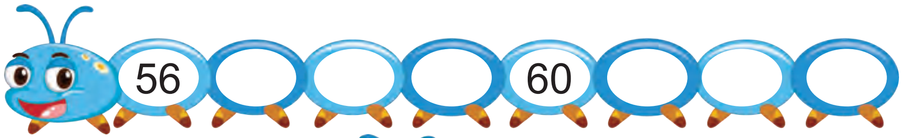
- read and write numbers up to 9 in numerals and words.
- read and write numbers in numerals up to 100.
- count forward and backward from 0 to 99.
- identify the numbers before / after and between the given numbers from 0 to 99.
- compare numbers from 0 to 99 and arrange them in an ascending and descending order.
- identify the place value of a specific digit in 2-digit numbers.
- count in tens and recognize 100 as a 3-digit number.
- identify the position of objects using ordinal numbers.
- identify more or less by comparing the number of objects in two groups.

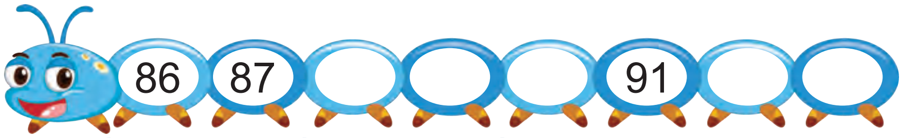
### Vocabulary

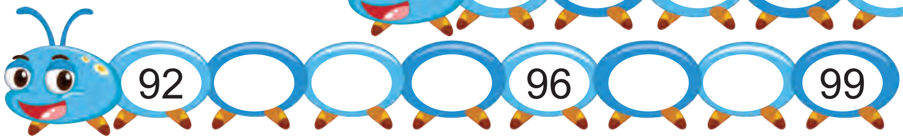
- Zero
- Forward counting
- Backward counting
- Place value
- Ones
- Tens
- Digit
- Ascending order
- Descending order
- Ordinal numbers

## Review Exercise

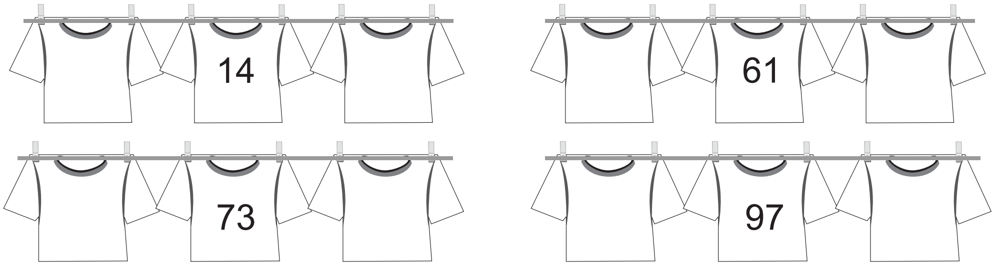
1. Write the correct missing numbers.







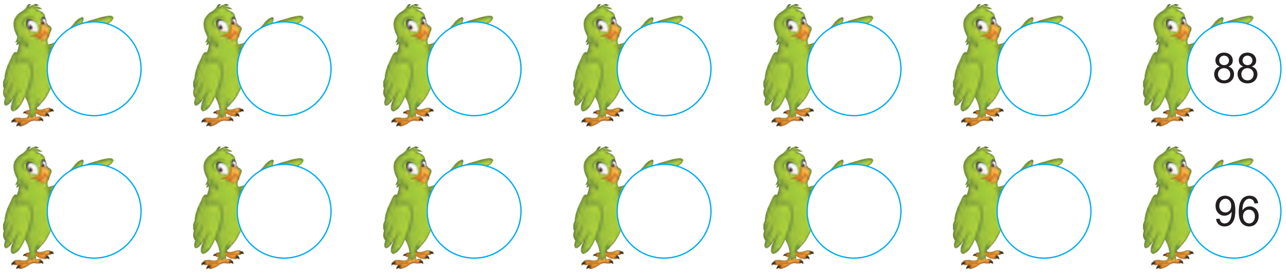
2. Write the numbers that come before and after the given number.



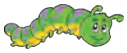

3. Write the number that comes between the given numbers.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 23 | | 25 | 43 | | 45 | 36 | | 38 | 98 | | 100 |

4. Count backward and write the correct number.




5. Write the ordinal number for each animal. (from right to left).

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| |  | | | |

6. Write 'smaller than' or 'greater than' in the blanks.

12 is ________________ 18.
99 is ________________ 90.
40 is ________________ 41.

70 is ________________ 60.
23 is ________________ 32.
61 is ________________ 62.

7. Write the following numbers in an ascending order:

21 | 24 | 23 | 25 | 22        45 | 47 | 49 | 46 | 48

| | | | | |
|---|---|---|---|---|
| | | | | |

| | | | | |
|---|---|---|---|---|
| | | | | |

8. Write the following numbers in an descending order:

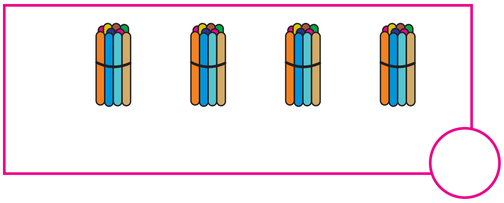
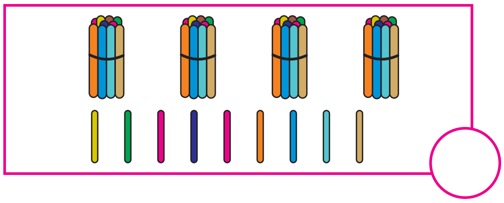
63 | 65 | 62 | 66 | 64        85 | 83 | 87 | 86 | 84

| | | | | |
|---|---|---|---|---|
| | | | | |

| | | | | |
|---|---|---|---|---|
| | | | | |

9. Count the objects, write the correct numbers and complete the sentence.

So, 24 is ______________ than 20.

So, 40 is ______________ than 49.

10. Read the instructions and write the correct number.

| | |
|---|---|
| I am the smallest 2-digit number.<br><br>I have 0 ones and 1 ten.<br><br>Tell me, who am I? ☐ | I am the greatest 2-digit number.<br><br>I have 9 ones and 9 tens.<br><br>100 comes after me.<br><br>Tell me, who am I? ☐ |

Unit 2

# Number Operations

Ali and Amna were picking oranges in the garden.

- How many oranges were there on the tree?
- How many oranges did Ali and Amna pick?
- How many oranges were left on the tree?

# Addition

## Learning Outcomes

After completing this portion you will be able to:

- Compare numbers from 1 to 20 to identify “how much more” one is from another.
- Recognize and use symbols of addition “+” and equality” =”
- Add two, 1-digit numbers sum up to 9.
- Add a 2-digit number to a 1-digit number.
- Add a 2-digit number to 10s.
- Add two, 2-digit numbers.
- Recognize the use of symbol to represent an unknown (include questions that sum up to 20).
- Add numbers (up to 20) using mental strategies by using real life examples.
- Construct addition sentence from given picture or number stories.

Harris and Hareem are playing with toys.
They want to know how many toys they have in total.
Will you help them?

# How Much More

I have two different number cards.
Tell! which number is how much greater than the other?

Let's count forward from 13 to 17.

13 → (1) → 14 → (1) → 15 → (1) → 16 → (1) → 17

17 is 4 steps forward from 13.

So, 17 is 4 more than 13.

Compare the numbers and write how much a number is more than the other.

9 → (1) → ☐ → (1) → ☐ → (1) → ☐ → (1) → ☐ → (1) → 14

So, 14 is ______more than ____.

12 → ( ) → ☐ → ( ) → ☐ → ( ) → ☐ → ( ) → ☐ → ( ) → ☐ → ( ) → 18

So, 18 is ______more than ____.

# Addition of 1-digit Numbers

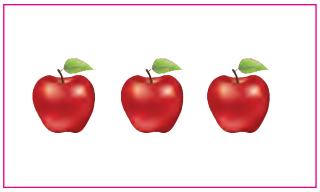
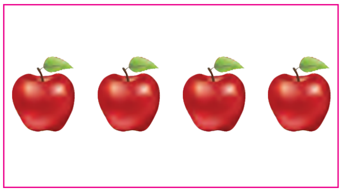
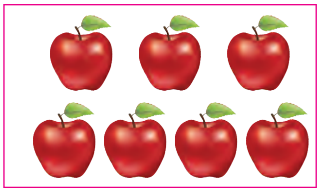
I have 2 cars in my hands and 3 cars on the table.

2 and 3 equal 5

We can also write it with the symbols of "+" (plus) and "=" (equal).

$2 + 3 = 5$

Let's count and add.

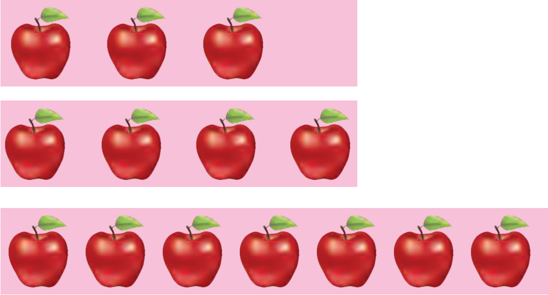
 and  equal 

3 and 4 equal 7

$3 + 4 = 7$

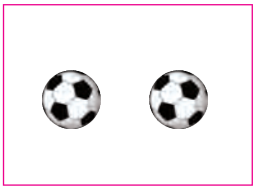
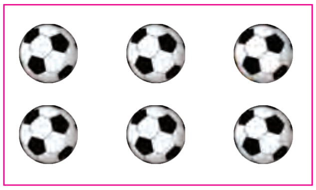
## We can also write it as:

  3
+ 4
---
  7



**Key Fact**

The "+" symbol is used for the addition process.

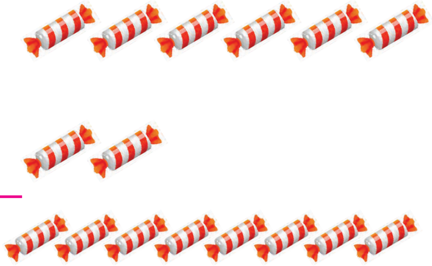
and  equal 

4 and 2 equal 6

$4 + 2 = 6$

  5
+ 3
---
  8

  6
+ 2
---
  8



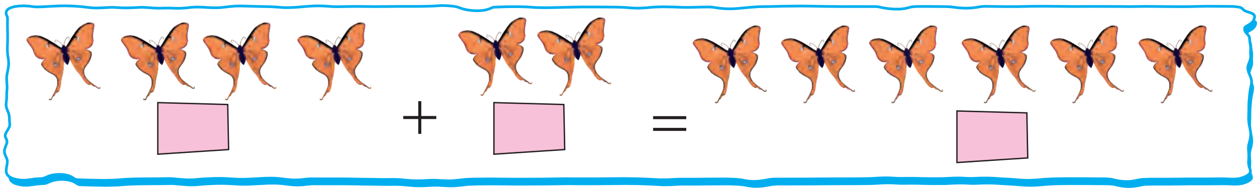
**Key Fact**

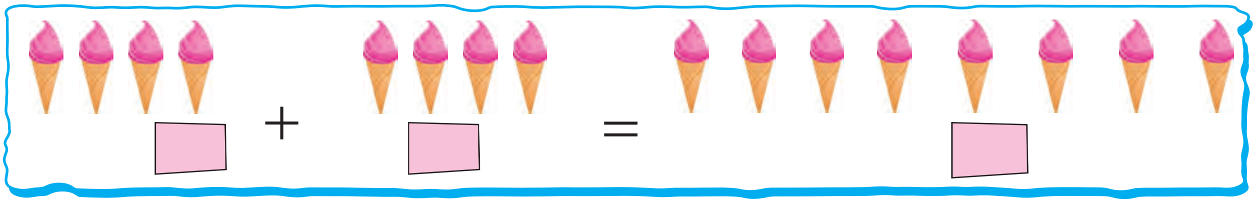
When 0 is added to a number, the answer is the number itself.

  4
+ 0
---
  4

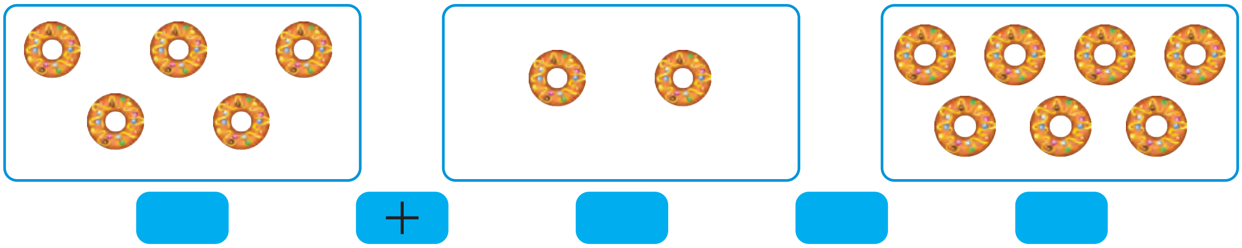
Ask the students to add 1- digit numbers by using number cards and symbols (+, =).

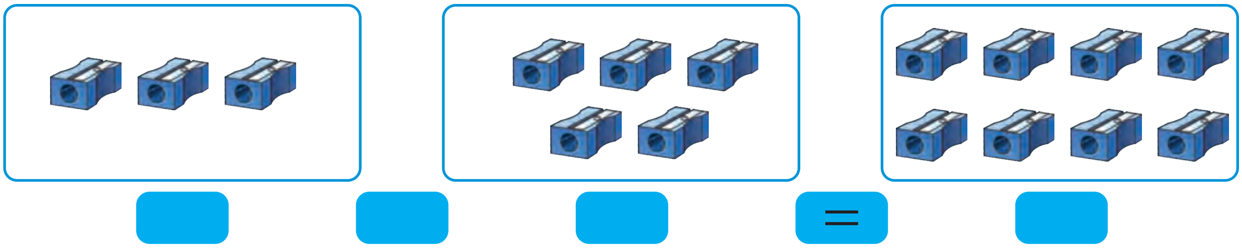
Count and add.



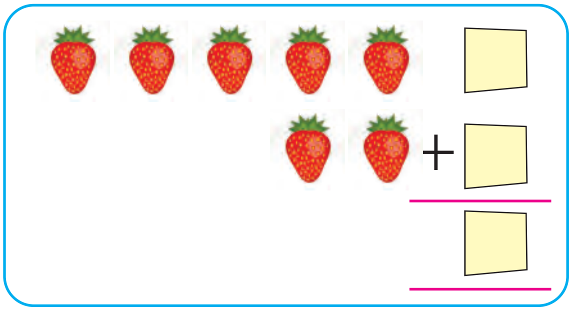



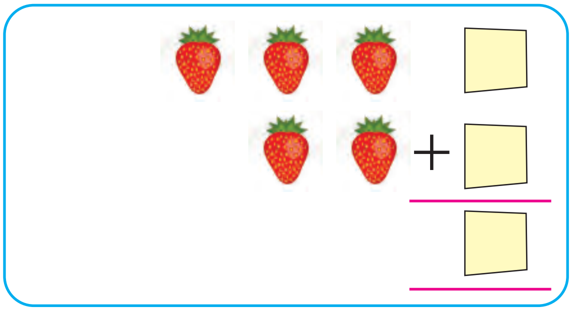

Count and add. Then use the symbol '+' and '=' and write the correct answer.




Count and add.



$+$ ☐

☐

$+$ ☐

☐

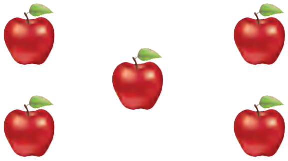
## Look at the picture and fill in the blanks.

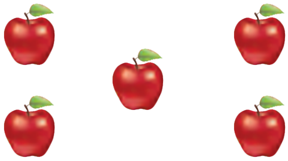
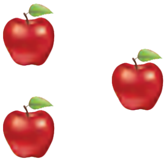
_______ ducks are in the water and _______ ducks are out of the water.

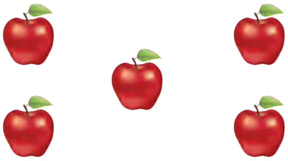
☐ + ☐ = ☐

There are _______ ducks altogether.

## Write the number in the boxes.

5  + ☐ = ☐

☐  +  3 = ☐

1 +  5 = ☐

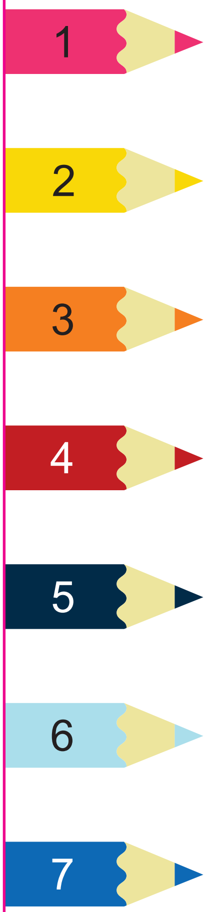
## Solve the following:

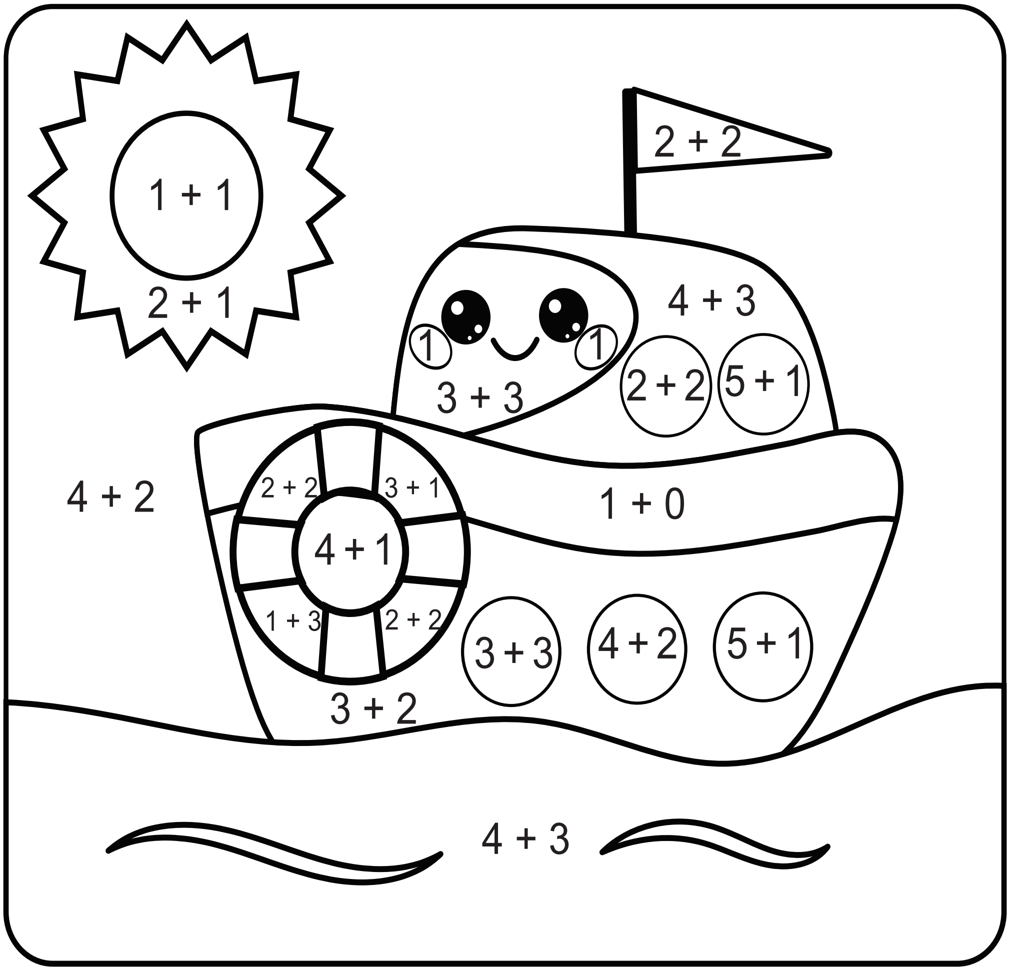
1 + 4 = ( )

3 + 5 = ( )

6 + 0 = ( )

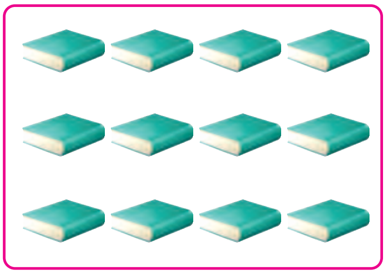
## Add and then colour the picture using the colour key given below.

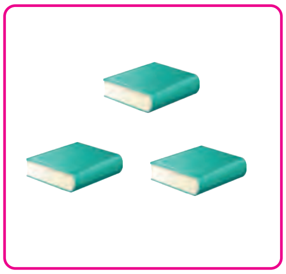


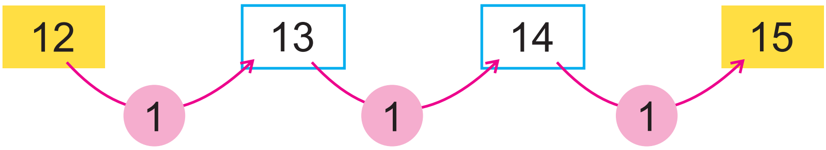
# Addition of 2-digit Number and 1-digit Number

Attiya had 12 storybooks.
Her mother gave her 3 more storybooks.
How many storybooks did she have altogether?

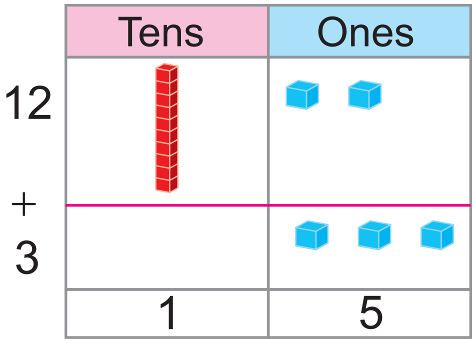




To find the total number of books, we need to add 12 and 3. Let's count forward 3 steps from 12.




We can add numbers by writing them in ones and tens.




| | Tens | Ones |
|---|---|---|
| Attiya had storybooks = | 1 | 2 |
| Mother gave her =+ | | 3 |
| Total books = | 1 | 5 |

**Step 1:** Add the ones.
2 ones + 3 ones = 5 ones

**Step 2:** Add the tens.
1 tens + 0 tens = 1 tens

So, Attiya had 15 storybooks altogether.

TEACHING POINT: Draw a place value chart on the writing board and write different 2-digit numbers on it. Now ask the students to add these numbers.

## Solve the following:

| | Tens | Ones |
|---|---|---|
| | 2 | 1 |
| + | | 6 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 3 | 3 |
| + | | 2 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 5 | 5 |
| + | | 4 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 1 |
| + | | 4 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 5 |
| + | | 3 |
| | | |

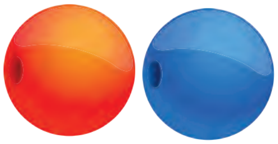
| | Tens | Ones |
|---|---|---|
| | 6 | 4 |
| + | | 5 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 8 | 1 |
| + | | 2 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 9 | 2 |
| + | | 6 |
| | | |

Zara has 22 red beads and 7 blue beads. How many beads does she have in total now?

| | | T | O |
|---|---|---|---|
| Red beads | = | | |
| Blue beads | = + | | |
| Total beads | = | | |



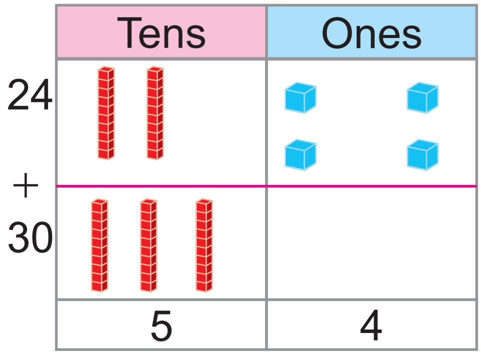
There were 61 almonds in a jar. Ali put 8 more almonds in the jar. How many almonds were there in the jar altogether?

| | | T | O |
|---|---|---|---|
| Almonds in the jar | = | | |
| More almonds | = + | | |
| Total almonds | = | | |

# Addition of 2-digit Numbers

Amna had 24 pencils. She bought 30 more pencils.
Find the total number of pencils.

| | | T | O |
|---|---|---|---|
| Amna had pencils | = | 2 | 4 |
| She bought pencils | = + | 3 | 0 |
| Total pencils | = | 5 | 4 |



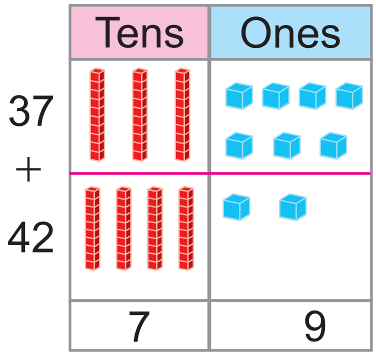

**Step 2:** Add the tens.
2 tens + 3 tens = 5 tens

**Step 1:** Add the ones.
4 ones + 0 ones = 4 ones

So, Amna had 54 pencils altogether.

Sadia baked 37 biscuits and her sister baked 42 biscuits. How many biscuits did both of them bake altogether?

| | | T | O |
|---|---|---|---|
| Sadia's biscuits | = | 3 | 7 |
| Her sister's biscuits | = + | 4 | 2 |
| Total biscuits | = | 7 | 9 |




**Step 2:** Add the tens.
3 tens + 4 tens = 7 tens

**Step 1:** Add the ones.
7 ones + 2 ones = 9 ones

So, Sadia and her sister baked 79 biscuits altogether.

TEACHING POINT: Draw a place value chart on the writing board and write different tens and 2-digit numbers on it. Now ask the students to add these numbers.

## Solve the following:

| | Tens | Ones |
|---|---|---|
| | 4 | 6 |
| + | 3 | 0 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 2 | 1 |
| + | 2 | 8 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 2 | 9 |
| + | 5 | 0 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 6 | 2 |
| + | 3 | 5 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 1 | 5 |
| + | 6 | 3 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 4 | 7 |
| + | 2 | 0 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 3 | 6 |
| + | 6 | 2 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 5 |
| + | 2 | 3 |
| | | |

Irtaza got Rs 40 on Eid and Mustafa got Rs 50. How much Eidi did both of them get altogether?

| | | T | O |
|---|---|---|---|
| Irtaza's Eidi | = | | |
| Mustafa's Eidi | = + | | |
| Total Eidi | = | | |

**Key Fact**

Always add ones in ones and tens in tens.

There were 65 green balls in a basket. The shopkeeper put another 14 red balls in it. How many balls were there in the basket altogether?

| | | T | O |
|---|---|---|---|
| Green balls | = | | |
| Red balls | = + | | |
| Total balls | = | | |

**Try Yourself**

Add 23 and 45.

# Find out the Unknown Numbers

Let's count and add.

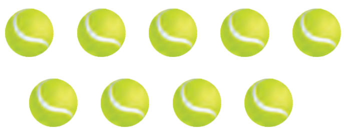
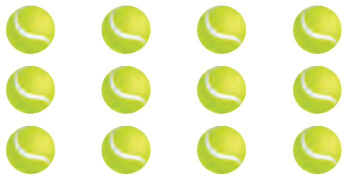
13 + 5 = 18

Let's add.

4 + 3 = 7 | 11 + 6 = ☐ | 10 + 6 = ☐

7 + 5 = ☐ | 2 + 13 = ☐ | 9 + 10 = ☐

Write the unknown number and fill in the boxes.

9 + ☐ = 12

☐ + 5 = 17

☐ + 5 = 15 | 7 + ☐ = 13 | ☐ + 8 = 16

10 + 8 = ☐ | 1 + ☐ = 5 | 5 + 7 = ☐

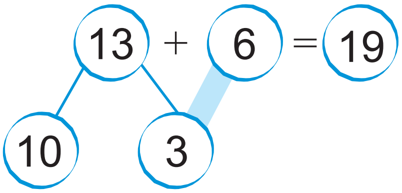
# Addition using Mental Strategies

Ahmed had Rs 13. His father gave him Rs 6 more. How much amount did he have altogether?

We can also find the total amount by using mental strategy.

**Step 1:**
Separate tens and ones.

13 =10 + 3




**Step 2:**
Add the ones.

3 + 6 = 9

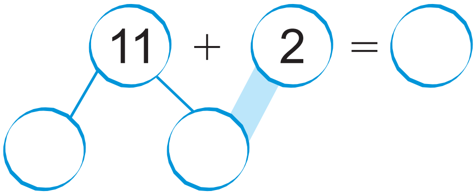
**Step 3:**
Now, add 10 to the result that is obtained in step 2.

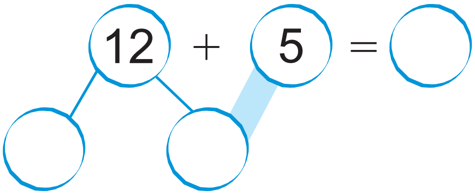
10 + 9 = 19

So, Ahmed had Rs 19 altogether.

Add the following numbers by using mental strategies:

| | | |
|---|---|---|
| 2 + 14 = ☐ | 13 + 6 = ☐ | 15 + 3 = ☐ |
| 2 + 17 = ☐ | 8 + 10 = ☐ | 14 + 4 = ☐ |



# Subtraction

## Learning Outcomes

After completing this portion, you will be able to:

- Compare numbers from 1- 20 and find "how much less" one is than the other?
- Recognize subtraction as a difference and take away, and use the symbol "–".
- Subtract 1-digit number from1-digit number.
- Subtract 1- digit number from 2-digit number.
- Subtract tens from 2-digit Number.
- Subtract 2-digit number from 2-digit number (Which result in positive).
- Recognize the use of symbol to represent an unknown.
- Subtract numbers (up to 20) using mental strategies involving real life situations.
- Construct subtraction sentences from the given pictures or number stories.

Musa had 5 balloons. He gave 2 balloons to his sister. How many balloons were left with Musa?

# How Much Less

I have two different number cards.
Tell! which number is how much less than the other?

Let's count backward from 14 to 9.

14 → 13 → 12 → 11 → 10 → 9

(1) (1) (1) (1) (1)

9 is 5 steps backward from 14.

So, 9 is 5 less than 14.

Compare the following numbers and write how much less a number is from the other:

13 → ☐ → ☐ → ☐ → ☐ → 8

(1) (1) (1) (1) (1)

So, 8 is ______less than ____.

19 → ☐ → ☐ → ☐ → ☐ → ☐ → 13

( ) ( ) ( ) ( ) ( ) ( )

So, 13 is ______less than ____.

# Subtraction of 1-digit Numbers

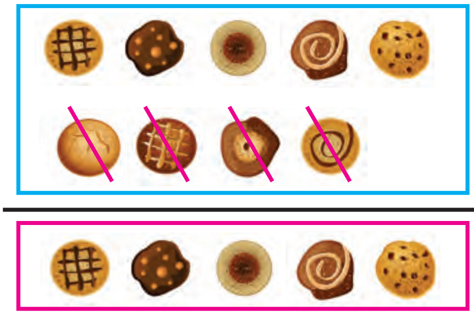
Haleema made 9 biscuits. I took 4 biscuits.
How many biscuits were left with Haleema?

To find out the remaining biscuits, take out 4 biscuits and count the remaining biscuits.

| | | | | |
|---|---|---|---|---|
| 9 | minus | 4 | equal | 5 |
| 9 | – | 4 | = | 5 |

So, 5 biscuits were left with Haleema.

We can also write it as:

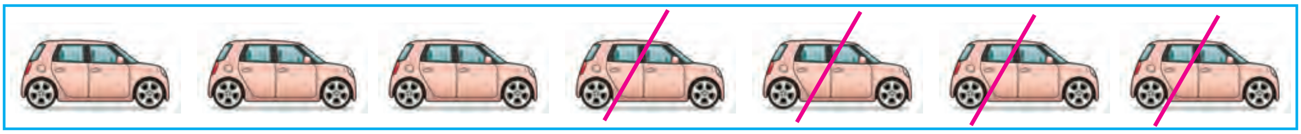


$$\begin{array}{r} 9 \\ -\ 4 \\ \hline 5 \end{array}$$

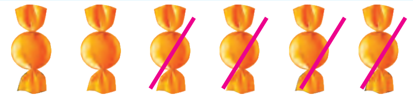
**Key Fact**

The "–" symbol is used for the subtraction process.

Let's count and subtract.

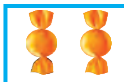


| | | | | |
|---|---|---|---|---|
| 7 | minus | 4 | equal | 3 |
| 7 | – | 4 | = | 3 |



6

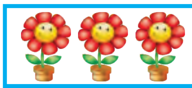
− 4



2

8

− 5

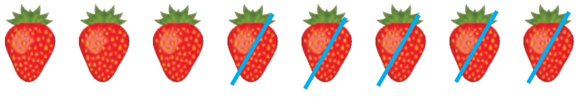


3

Take away 2

| How many are left? | 2 |
|---|---|

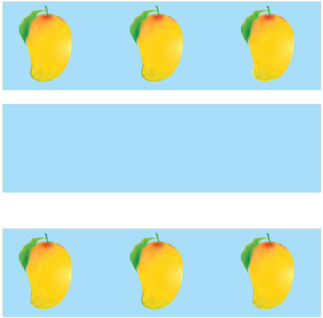
Take away 5



| How many are left? | 3 |
|---|---|

**Key Fact**

When '0' is subtracted from any other number, the answer is the number itself.

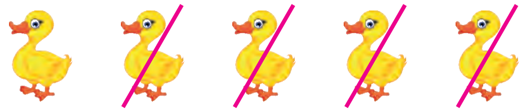


3

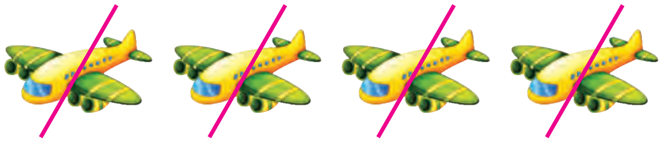
− 0

3

Count and subtract. Then use the symbol '–' and '=' and write the correct answer.



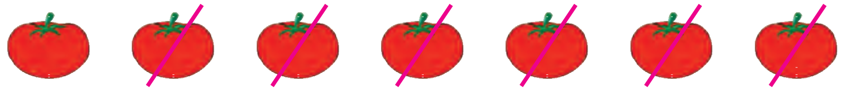
5 ☐ ☐ = ☐



4 – 4 ☐ ☐

**Key Fact**

When '0' is subtracted from any other number, the answer is the number itself.

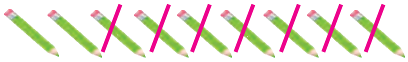


7 ☐ ☐ = ☐

☐ – ☐ ☐ 2

Ask the students to subtract 1-digit numbers using numbers and symbol cards.

## Subtract.



9
– 7

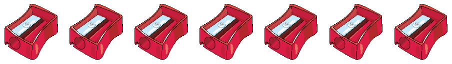
☐

6
– 1

☐

5
– 4

☐



7
– 7

☐

## Look at the picture and fill in the blanks.

_______birds were sitting on the tree.

_______birds flew away.

______birds are left on the tree.

☐ – ☐ = ☐

## Write the number in the boxes.

Take away 2

How many are left? ☐

Take away 3

How many are left? ☐

## Solve the following:

| Ones | Ones | Ones | Ones |
|---|---|---|---|
| 3 | 5 | 6 | 7 |
| − 1 | − 0 | − 3 | − 2 |
| | | | |

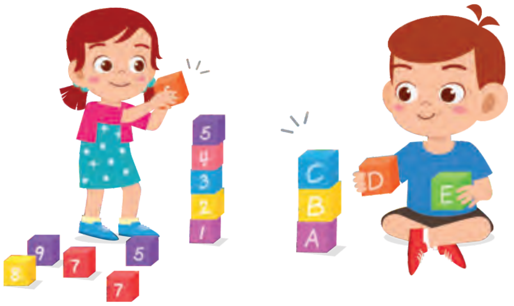
| Ones | Ones | Ones | Ones |
|---|---|---|---|
| 8 | 9 | 4 | 5 |
| − 5 | − 1 | − 2 | − 5 |
| | | | |

## Subtraction of 1-digit Number from 2-digit Number

Fatima has 16 blocks.

She gives 5 blocks to her brother.

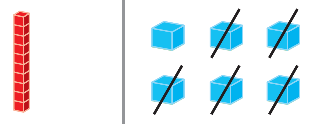
How many blocks are left with Fatima?



To find out the remaining blocks, we need to subtract 5 from 16. Let's count 5 steps back from 16.

16 → (1) → 15 → (1) → 14 → (1) → 13 → (1) → 12 → (1) → 11

We can subtract numbers by writing them in tens and ones.

| Tens | Ones |
|---|---|
|  | |
| 1 | 1 |

| | | Tens | Ones |
|---|---|---|---|
| Total blocks | = | 1 | 6 |
| Blocks given | = – | | 5 |
| Blocks left | = | 1 | 1 |

**Step 1:** Subtract ones from ones.

6 ones – 5 ones = 1 ones

**Step 2:** Subtract tens from tens.

1 tens – 0 tens = 1 tens

Now, Fatima has 11 blocks.

TEACHING POINT: Draw a place value chart on the writing board and write different 1-digit and 2-digit numbers on it. Now ask the students to find out the difference between them.

## Solve the following:

| Tens | Ones |
|---|---|
| 2 | 6 |
| – | 4 |
| | |

| Tens | Ones |
|---|---|
| 5 | 8 |
| – | 6 |
| | |

| Tens | Ones |
|---|---|
| 6 | 7 |
| – | 2 |
| | |

| Tens | Ones |
|---|---|
| 7 | 5 |
| – | 4 |
| | |

| Tens | Ones |
|---|---|
| 8 | 8 |
| – | 7 |
| | |

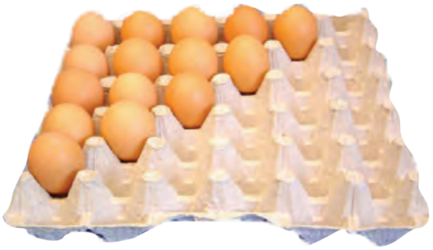
| Tens | Ones |
|---|---|
| 4 | 5 |
| – | 0 |
| | |

| Tens | Ones |
|---|---|
| 9 | 9 |
| – | 9 |
| | |

| Tens | Ones |
|---|---|
| 6 | 8 |
| – | 6 |
| | |

There were 15 eggs in a tray. Hareem's mother used 5 eggs to bake a cake. How many eggs were left in the tray?

| | | Tens | Ones |
|---|---|---|---|
| Total eggs | = | | |
| Eggs used | = – | | |
| Eggs left | = | | |

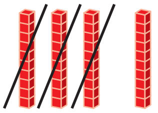
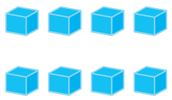


Umer had 18 strawberries. He ate 6 strawberries. How many strawberries were left?

| | | Tens | Ones |
|---|---|---|---|
| Umer had strawberries | = | | |
| Umer ate | = – | | |
| Strawberries left | = | | |

## Subtraction of 2-digit Number from 2-digit Number

One shepherd had 48 sheep.
30 sheep were sold.
How many sheep were left?

| Tens | Ones |
|---|---|
|  |  |
| 1 | 8 |

**Key Fact**

Always subtract ones from ones and tens from tens.

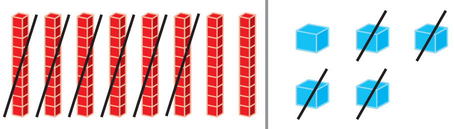
| | | T | O |
|---|---|---|---|
| Total sheep | = | 4 | 8 |
| Sheep sold | = – | 3 | 0 |
| Sheep left | = | 1 | 8 |

Step 2: Subtract tens from tens.
4 tens – 3 tens = 1 tens

Step 1: Subtract ones from ones.
8 ones – 0 ones = 8 ones

Now, the shepherd had 18 sheep.

Zara had 85 candies. She distributed 64 candies among her friends. How many candies were left?

| Tens | Ones |
|---|---|
|  | |
| 2 | 1 |

| | T | O |
|---|---|---|
| Total candies = | 8 | 5 |
| Candies distributed = – | 6 | 4 |
| Candies left = | 2 | 1 |

**Step 2:** Subtract tens from tens.
8 tens – 6 tens = 2 tens

**Step 1:** Subtract ones from ones.
5 ones – 4 ones = 1 ones

Now, 21 candies were left with her.

### Try Yourself

Find the difference between 45 and 23.

## Solve the following:

| Tens | Ones |
|---|---|
| 5 | 7 |
| _ 4 | 0 |
| | |

| Tens | Ones |
|---|---|
| 6 | 8 |
| _ 4 | 6 |
| | |

| Tens | Ones |
|---|---|
| 4 | 9 |
| _ 4 | 2 |
| | |

| Tens | Ones |
|---|---|
| 7 | 1 |
| _ 6 | 0 |
| | |

TEACHING POINT: Draw a place value chart on the writing board and write different 2-digit numbers on it. Now ask the students to subtract these numbers.

| | Tens | Ones |
|---|---|---|
| | 8 | 4 |
| – | 7 | 4 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 6 | 2 |
| – | 2 | 2 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 9 |
| – | 4 | 5 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 8 | 8 |
| – | 5 | 6 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 9 | 1 |
| – | 7 | 0 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 2 |
| – | 6 | 2 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 9 | 6 |
| – | 3 | 0 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 9 | 9 |
| – | 8 | 2 |
| | | |

Hamza had 72 seashells. He gave 32 seashells to his sister Hina. How many seashells were left with him?

| | | | T | O |
|---|---|---|---|---|
| Total seashells | = | | ☐ | ☐ |
| Seashells given | = | – | ☐ | ☐ |
| Seashells left | = | | ☐ | ☐ |

There are 66 pages in a storybook. Sara has read 34 pages. How many pages were left?

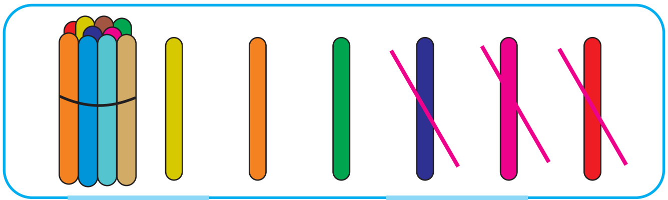
| | | | T | O |
|---|---|---|---|---|
| Total pages | = | | ☐ | ☐ |
| Pages read | = | – | ☐ | ☐ |
| Pages left | = | | ☐ | ☐ |

Ahmed had Rs 70. He gave Rs 60 to his brother Fahad. How many rupees are left?

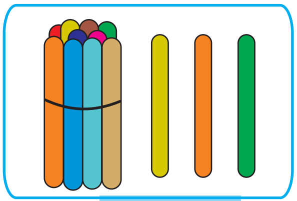
| | | | T | O |
|---|---|---|---|---|
| Total rupees | = | | ☐ | ☐ |
| Rupees given | = | – | ☐ | ☐ |
| Rupees left | = | | ☐ | ☐ |

# Find out the Unknown Numbers

Let's count and subtract.



16 – 3 =

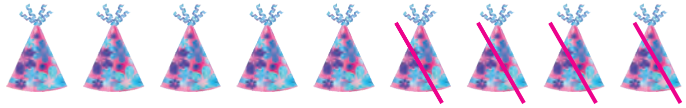


13

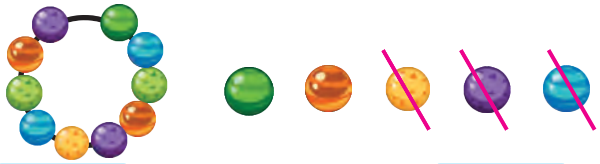
Let's subtract.

| | | |
|---|---|---|
| 5 – 4 = 1 | 11 – 5 = ☐ | 8 – 3 = ☐ |
| 17 – 5 = ☐ | 18 – 14 = ☐ | 19 – 10 = ☐ |

Write the unknown number and fill in the boxes.



9 – 4 = ☐

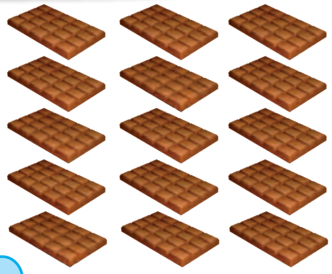


15 – ☐ = 12

| | | |
|---|---|---|
| 6 – ☐ = 5 | 8 – 6 = ☐ | ☐ – 5 = 3 |
| 14 – ☐ = 10 | 10 – 7 = ☐ | ☐ – 8 = 11 |

TEACHING POINT: Explain the concept of finding the unknown numbers with different examples on the writing board.

# Subtraction using Mental Strategies



Arham had 15 chocolates. He ate 3 chocolates.

How many chocolates were left?

We can also find out the remaining chocolates by mental strategy.

**Step 1:**
Separate tens and ones.

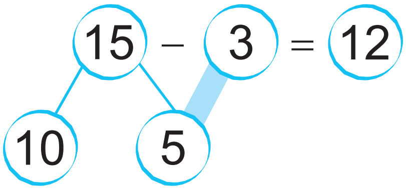
15 =10 + 5

**Step 2:**
Subtract the ones.

5 – 3 = 2

**Step 3:**
Now, add 10 to the result that is obtained in step 2.

10 + 2 = 12

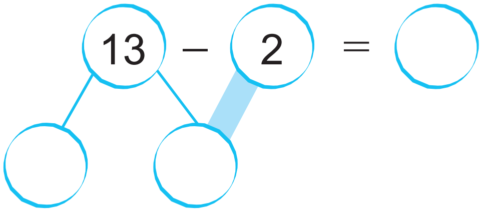


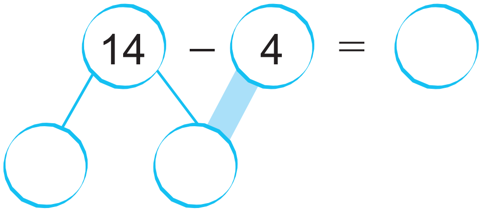

Now, 12 chocolates were left with him.

Subtract the following numbers using mental strategies:

15 – 13 = ____ 17 – 2 = ____ 18 – 4 = ____

16 – 6 = ____ 19 – 7 = ____ 12 – 2 = ____



## I have learnt

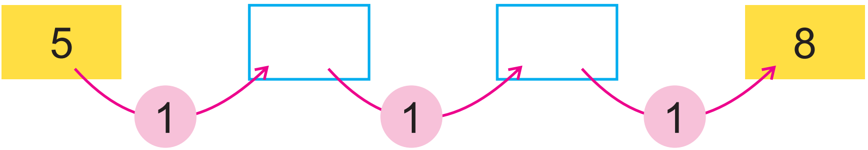
- compare numbers from 1-20 and find "how much more" or "how much less" one number is than the other.
- add and subtract 1-digit numbers.
- add and subtract 2-digit numbers.
- subtract tens from 2-digit numbers.
- recognize the symbol to find an unknown number.
- add and subtract numbers (up to 20) using mental strategies.

### Vocabulary

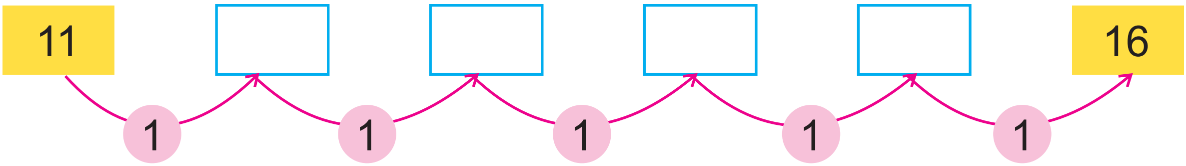
- Addition
- Sum
- Equal
- Total
- Subtraction
- Left
- Difference
- Take away

## Review Exercise

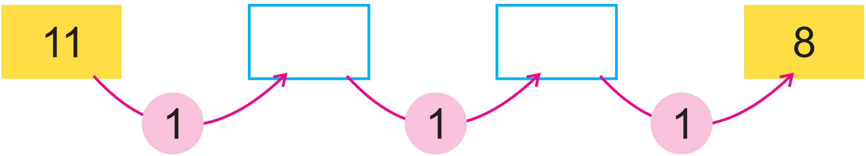
1. Compare the following numbers and fill in the blanks:



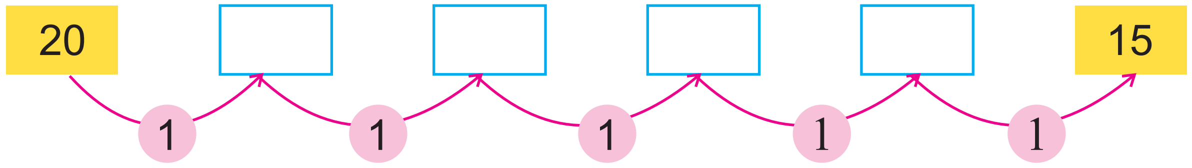

So, 8 is ______more than ____.




So, 16 is ______more than ____.

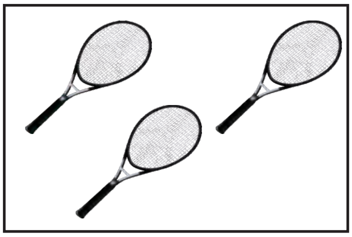
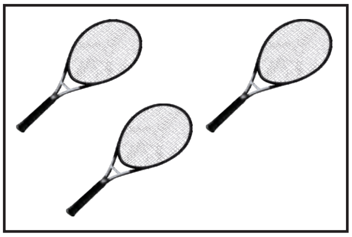



So, 8 is ______less than ____.

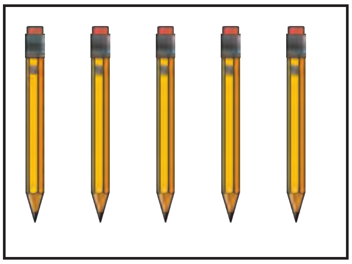
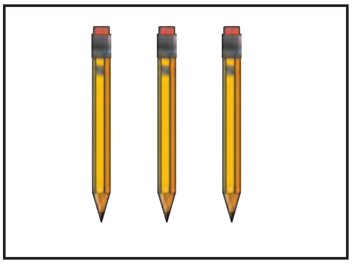



So, 15 is ______less than _____.

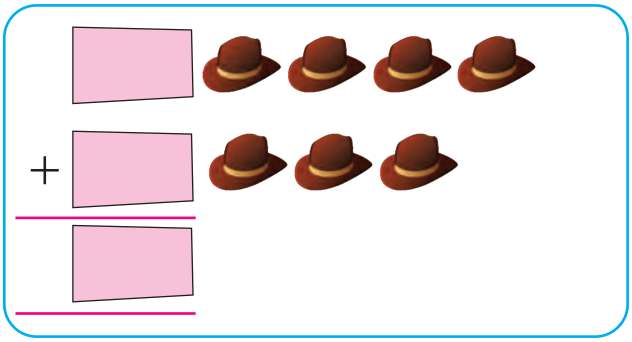
## 2. Count, add and fill in the boxes.

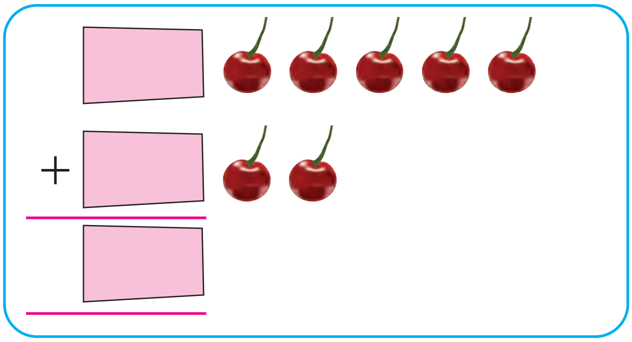
 

☐ + ☐ = ☐

☐ + ☐ = ☐



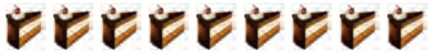
## 3. Count and subtract.

□ − □ = □

□ − □ = □

## 4. Solve the following:

$$\begin{array}{r} 8 \\ -\ 6 \\ \hline \square \end{array}$$



$$\begin{array}{r} 9 \\ -\ 9 \\ \hline \square \end{array}$$

## 5. Look at the following pictures and fill in the blanks.

There are _____ red apples and

______ green apples in the basket.

□ + □ = □

There are _____ apples altogether in the basket.

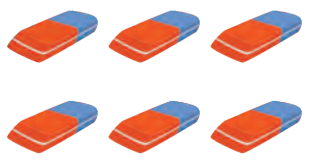
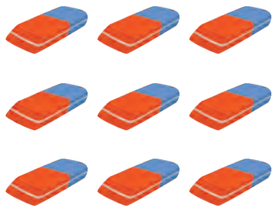
_____ butterflies were sitting on the plant.

______ butterflies flew away.

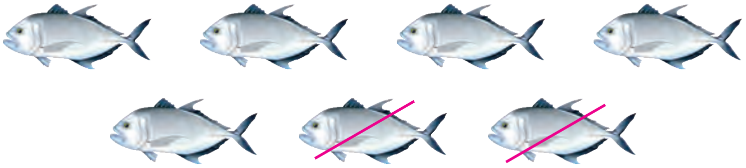
□ − □ = □

_____ butterflies were left on the plant.

## 6. Write the unknown number and fill in the boxes.

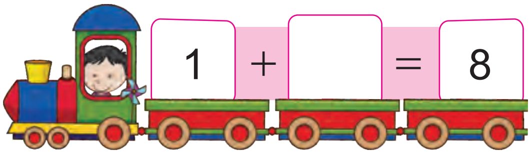
 

☐ + 6 = 9

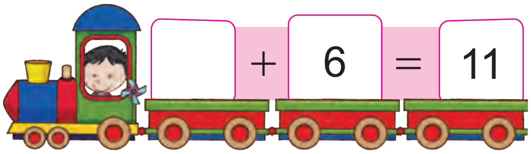


7 − 2 = ☐

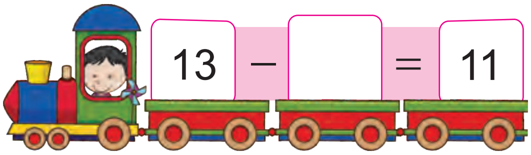
## 7. Find out the unknown number.



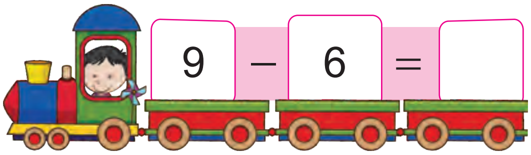
1 + ☐ = 8



☐ + 6 = 11



13 − ☐ = 11



9 − 6 = ☐

## 8. Solve the following:

| | Tens | Ones |
|---|---|---|
| | 2 | 6 |
| + | | 1 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 7 |
| + | | 2 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 3 | 1 |
| + | 4 | 6 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 6 | 9 |
| + | 1 | 0 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 3 | 6 |
| − | | 6 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 5 | 8 |
| − | | 5 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 7 | 7 |
| − | 4 | 4 |
| | | |

| | Tens | Ones |
|---|---|---|
| | 8 | 3 |
| − | 1 | 1 |
| | | |

| Tens | Ones |
|---|---|
| 8 | 9 |
| _ 6 | 0 |
| | |

| Tens | Ones |
|---|---|
| 9 | 3 |
| _ 8 | 1 |
| | |

| Tens | Ones |
|---|---|
| 7 | 0 |
| _ 5 | 0 |
| | |

| Tens | Ones |
|---|---|
| 6 | 4 |
| _ 5 | 2 |
| | |

9. Iram saw 15 parrots and 3 pigeons in the zoo. How many birds did she see altogether?

| | | | T | O |
|---|---|---|---|---|
| Number of parrots | = | | | |
| Number of pigeons | = | + | | |
| Total birds | = | | | |

10. Sara has two books. One book has 56 pages and the other has 42 pages. If Sara reads both books, how many pages will she read altogether?

| | | | T | O |
|---|---|---|---|---|
| Pages of one book | = | | | |
| Pages of other book | = | + | | |
| Total pages | = | | | |

11. There are 45 students in Zara's class. If 23 of them are boys, how many girls are there?

| | | | T | O |
|---|---|---|---|---|
| Total students | = | | | |
| Number of boys | = | – | | |
| Number of girls | = | | | |

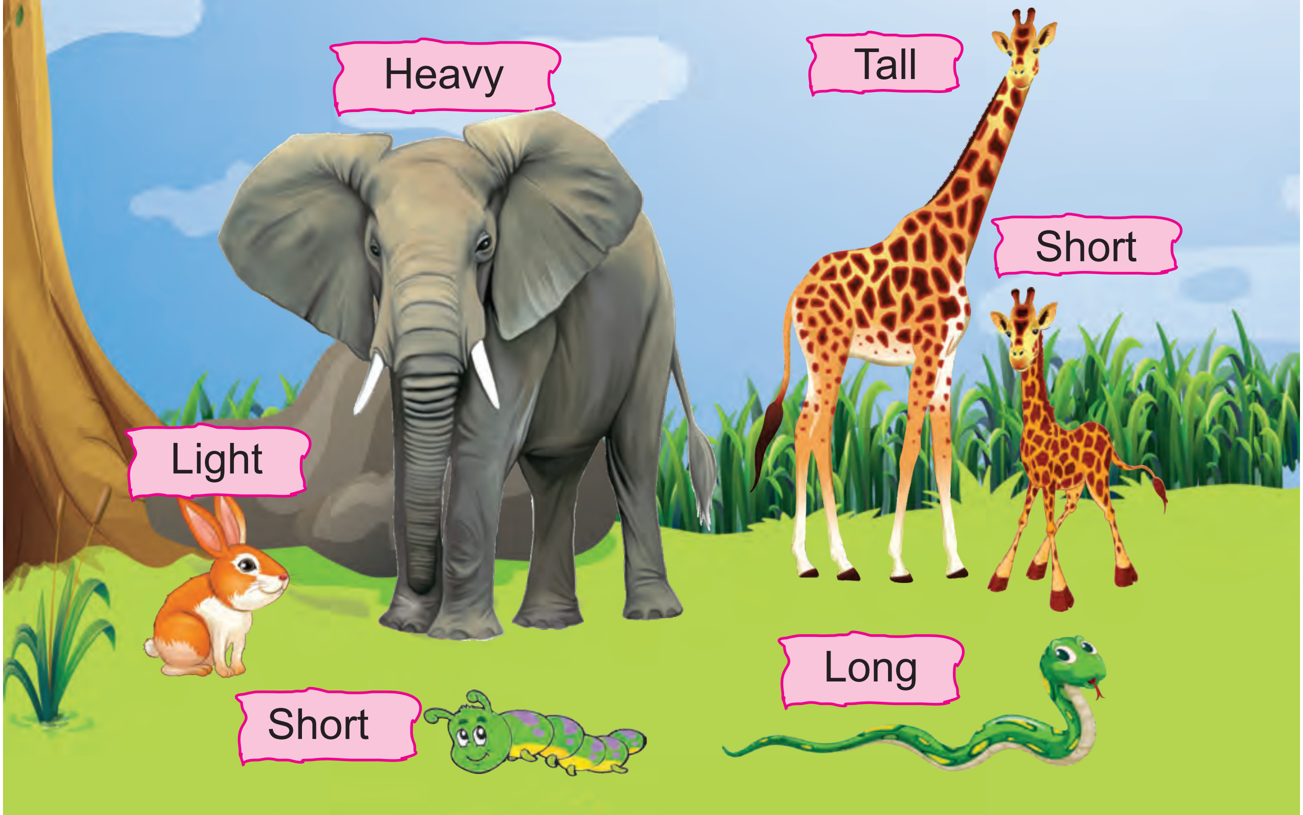
# Unit 3

# Measurement

## Learning Outcomes

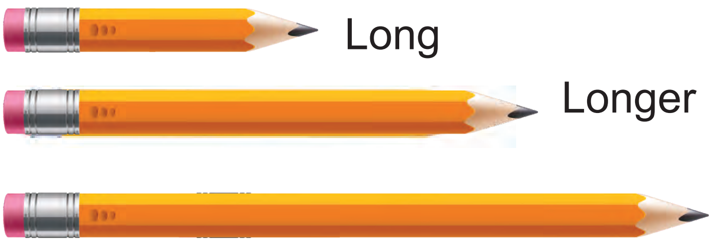
After completing this unit, you will be able to:

- Compare the heights/lengths of two or more objects using the following terms:
  - Long, longer, longest
  - Short, shorter, shortest
  - Tall, taller, tallest
  - High, higher, highest
- Compare the masses of two or more objects using the terms:
  - Heavy, heavier, heaviest
  - Light, lighter, lightest



# Long, Longer, Longest

There are a few things in my bag.
Let's look at them and compare their lengths.



Long

Longer

Longest

## Try Yourself

Which one is longer, your book or your eraser?

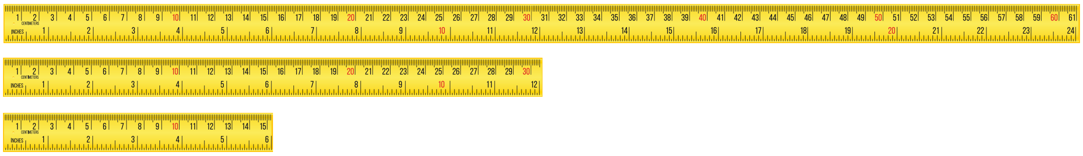
# Short, Shorter, Shortest

Short Shorter Shortest

TEACHING POINT

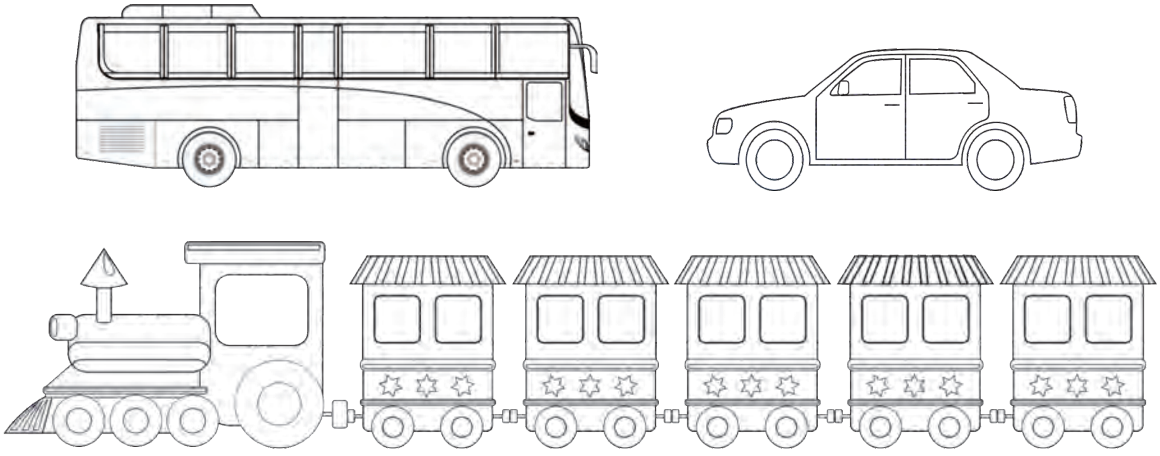
Use ribbons, rope or wooden sticks to explain the above concept. Ask the students to use the terms long, longer, longest and short, shorter, shortest to compare their lengths.

Tick (✓) the shortest object and cross (×) the short object.



Encircle the longest object and cross (×) the long object.

Colour the long object blue, longer object yellow and the longest object red.



## Tall, Taller, Tallest

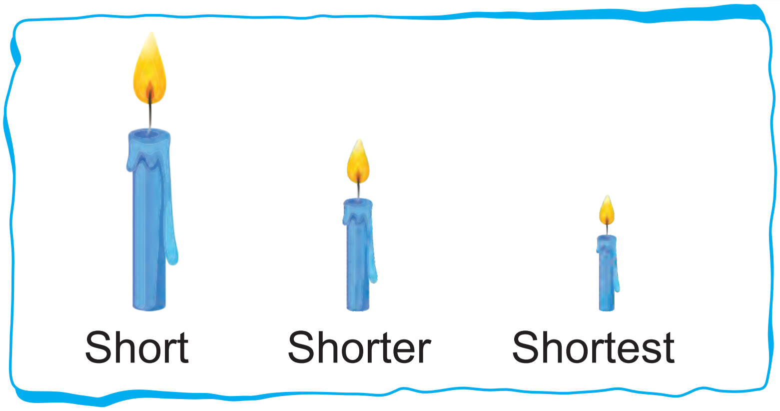
Nida wants to know which tree is the tallest? Let's help her.

Tall Taller Tallest

**Try Yourself**

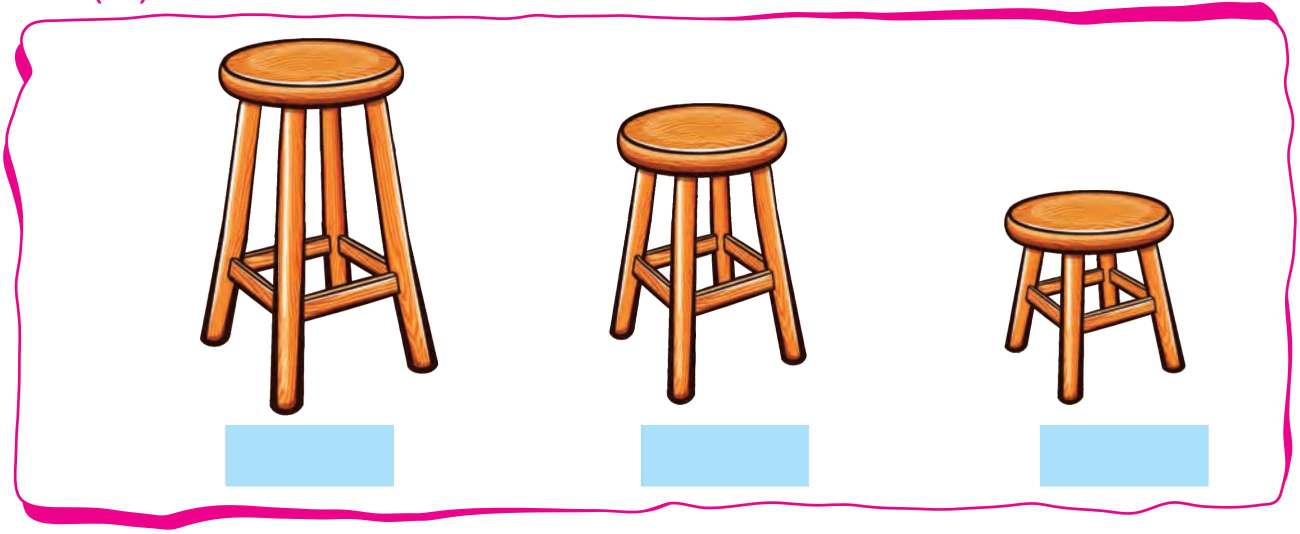
Who is the tallest student in your class?

# Short, Shorter, Shortest

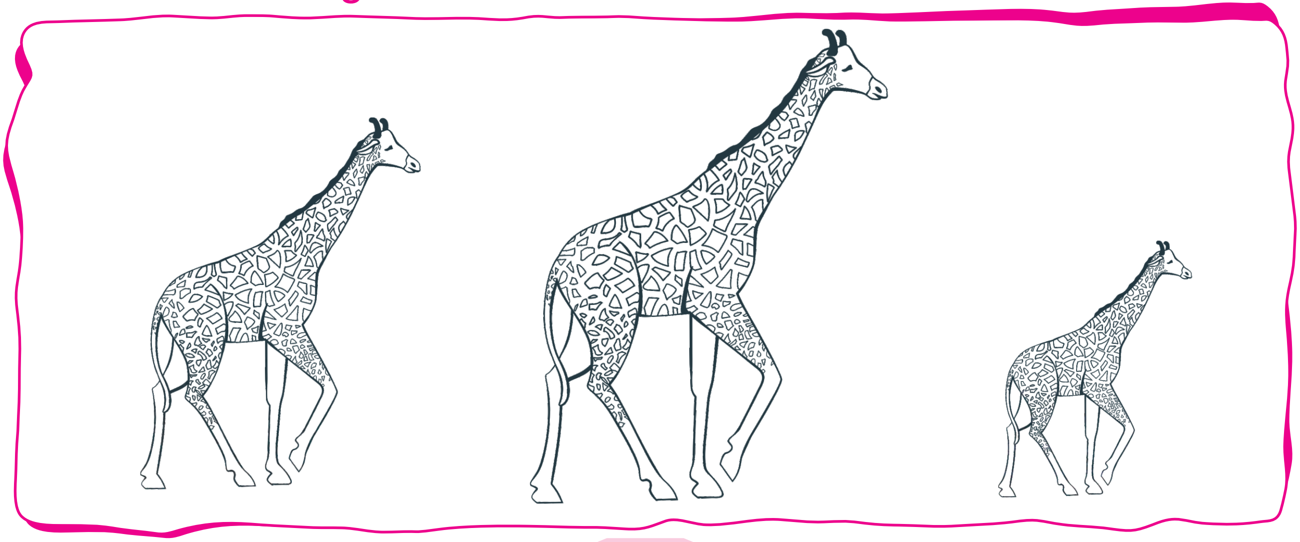



Paste a chart paper with 3 columns on the writing board. Label the first column as 'the shortest' and the last column as 'the tallest'. Distribute picture cards of some short and tall objects among the students. Ask them to paste these picture cards in the correct order.

Tick (✓) the shortest stool.



Colour the tallest giraffe.



# High, Higher, Highest

Ahmed wants to know which national flag is the highest? Let's help him.

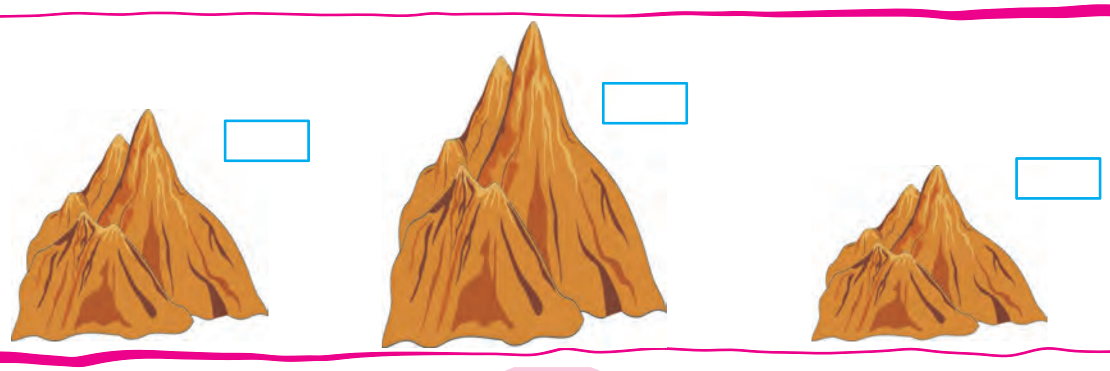
High Higher Highest

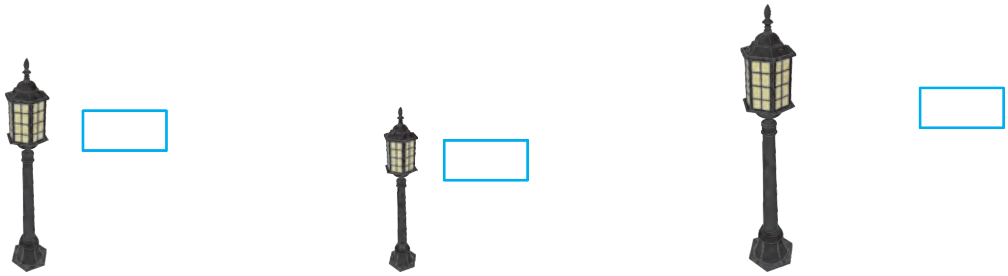
TEACHING POINT

Take the students for a walk outside the classroom. Show them some poles, pillars, building with different heights and use the terms high, higher and the highest for comparison.

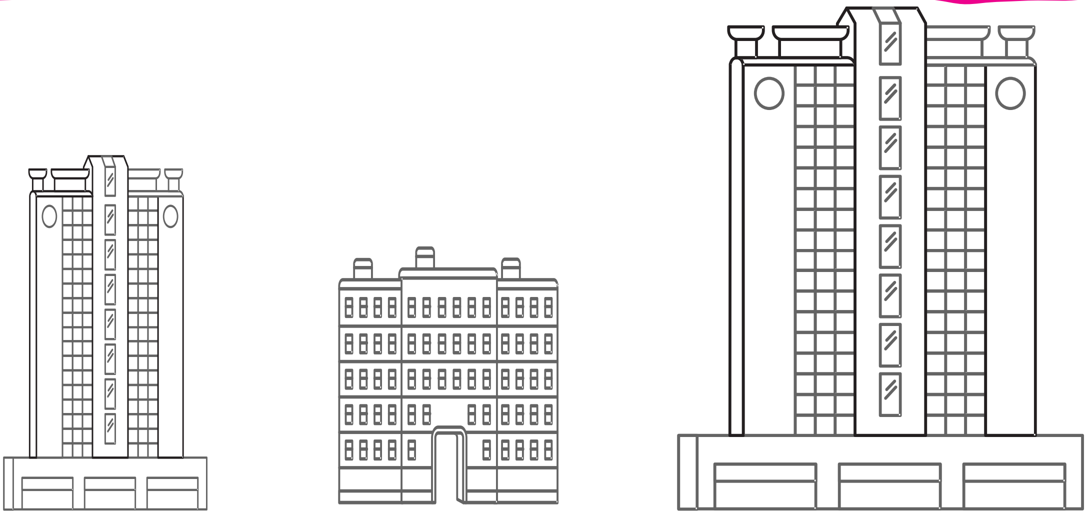
High Higher Highest

Write “1” for high, “2” for higher and “3” for the highest.





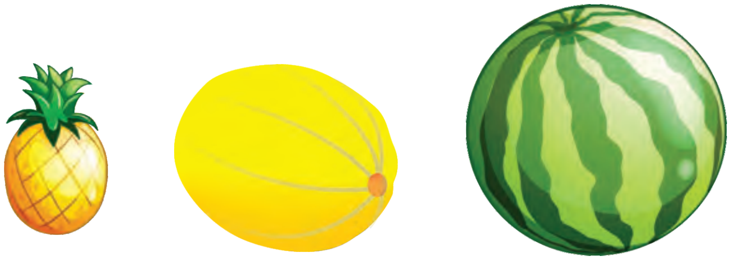
Colour the highest building.



## Heavy, Heavier, Heaviest

I have some fruits and vegetables in my basket.

Let's look at them and compare their masses.



Heavy Heavier Heaviest

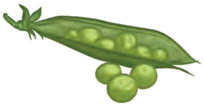
TEACHING POINT

Place some items of different masses (pencils, erasers and copies, water bottles, bags, etc.) on the table. Ask the students to identify them by holding each item in their hands and tell which is lighter and which is heavier?

# Light, Lighter, Lightest

Light

Lighter

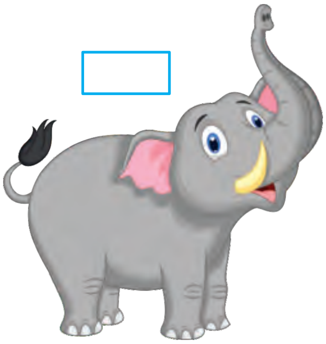


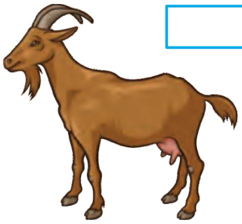
Lightest

**Try Yourself**

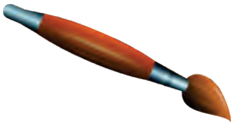
Which one is heavier, a jug or a glass?

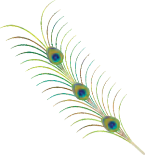
Tick (✓) the heaviest object and cross (×) the heavy object.





Tick (✓) the lightest object.





Draw something lighter than the book and colour it.

TEACHING POINT

Explain to the students that the term "weight" is used to find the mass of objects in daily life.

## I have learnt

- compare the heights/lengths of two or more objects using the following terms:
  - long, longer, longest
  - short, shorter, shortest
  - tall, taller, tallest
  - high, higher, highest
- compare the mass of two or more objects using the terms:
  - heavy, heavier, heaviest
  - light, lighter, lightest

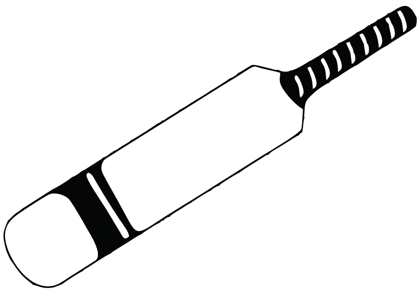
### Vocabulary

- Long, Longer, Longest
- Short, Shorter, Shortest
- Tall, Taller, Tallest
- High, Higher, Highest
- Heavy, Heavier, Heaviest
- Light, Lighter, Lightest

## Review Exercise

1. Tick (✓) the longest object.

2. Draw something shorter than the bat and colour it.

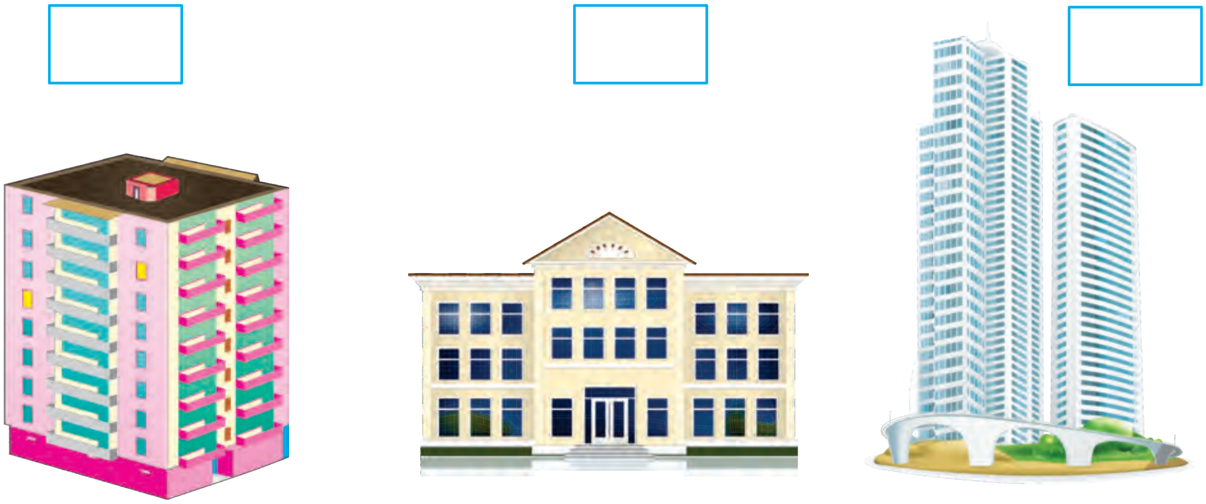


3. Colour the shortest flower pot.

4. Draw trees in the given boxes and colour them.

| Tall | Taller | Tallest |
| --- | --- | --- |
| | | |

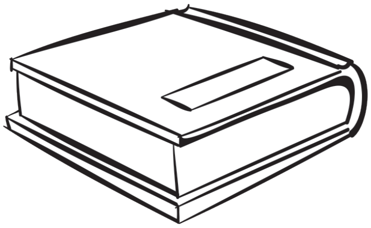
5. Write "1" for "high", "2" for "higher" and "3" for the "highest".

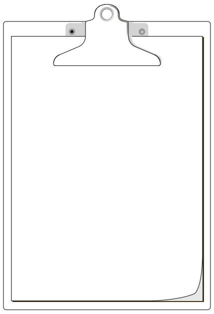


6. Compare the objects and write “1” for “light”, “2” for “lighter” and “3” for “the lightest”

7. Tick (✓) the heaviest object.

8. Colour the lightest object blue and the heaviest object yellow.





Unit 4

# Money

## Learning Outcomes

After completing this unit, you will be able to:

- Identify Pakistani currency coins (Rs 1, 2, 5 and 10).
- Identify Pakistani currency  notes (Rs 10, 20, 50 and 100).
- Match a group of coins/notes to an equivalent group of different denominations.
- Add and subtract money using the prices of objects transactions, e.g.toys.
- Recognize money change (up to 100) to its equivalent/denominations.
- Determine if enough money is available to make a purchase (up to 100).
- Add different combinations of coins/notes (to make sum up to 100).

Can you tell how will Ali and Hamna buy toys?

# Pakistani Coins and Notes

When we go for shopping, we need money to buy things. Money is used in the form of coins or notes.

**Key Fact**

Each coin and note has two sides.

Let's look at Pakistani coins and read their values.

1 rupee coin

2 rupee coin

5 rupee coin

10 rupee coin

Let's look at Pakistani notes and read their values.

10-rupee note

20-rupee note

50-rupee note

100 rupee note

**Key Fact**

Coins are made of metal while notes are made of paper.

## Write the value of each coin and note.

☐ **Rupee**

☐ **Rupees**

☐ **Rupees**

☐ **Rupees**

☐ **Rupees**

☐ **Rupees**

☐ **Rupees**

☐ **Rupees**

TEACHING POINT: Show different Pakistani coins and notes to the students and explain the importance of using money in daily life. Tell them about the values of coins and notes.

# Changing Money

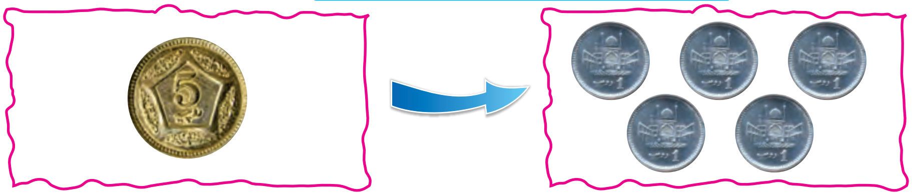
When we go for shopping, we need money to buy things. Money is in the form of coins or notes.

One 2-rupee coin = Two 1-rupee coins

Rs2 = Rs1 + Rs1

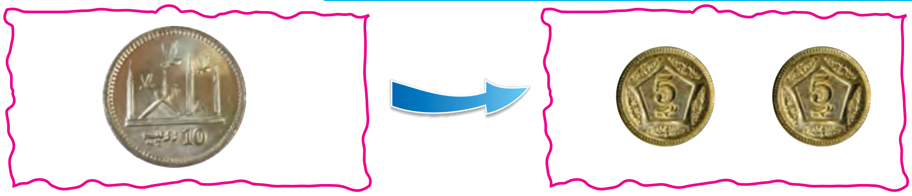
**Key Fact**

The unit of money is "Rs" (Rupee).



One 5-rupee coin = Five 1-rupee coins

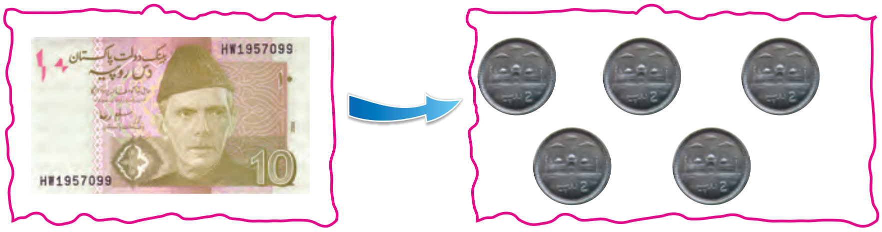
Rs 5 = Rs 1 + Rs 1+ Rs 1 + Rs1 + Rs 1



One 10-rupee coin = Two 5-rupee coins

Rs 10 = Rs 5 + Rs 5

We can exchange one high value note for other lower value coins and notes.

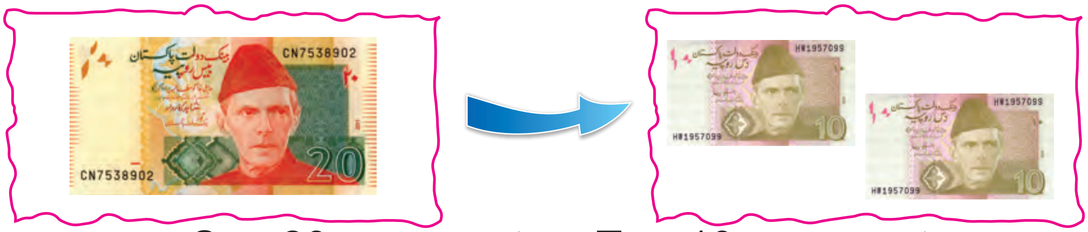


One 10-rupee note = Five 2-rupee coins

Rs 10 = Rs 2 + Rs 2 + Rs 2 + Rs 2 + Rs 2

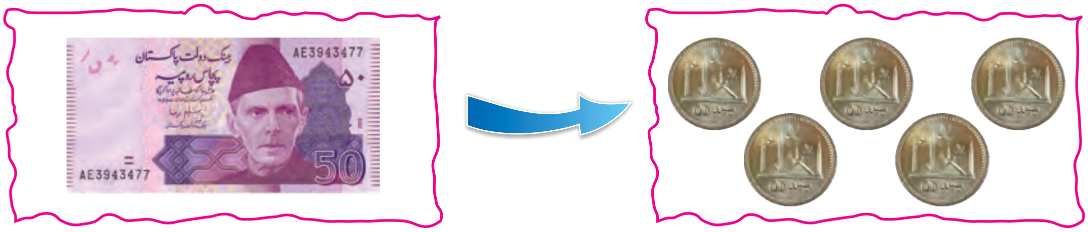
**Try Yourself**

If you exchange 20-rupee note with anyone, how many 2-rupee coins will you get?



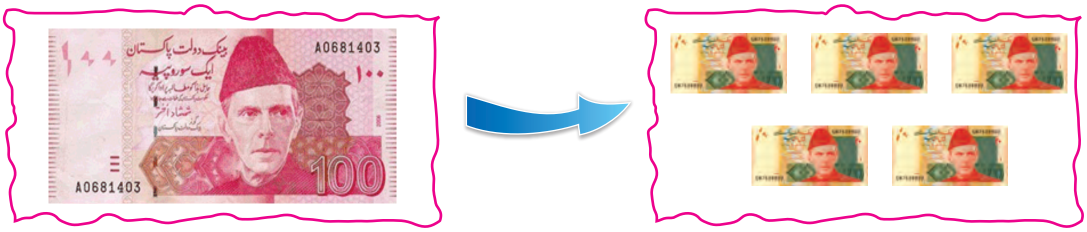
One 20-rupee note = Two 10-rupee notes

Rs 20 = Rs 10 + Rs 10



One 50-rupee note = Five 10-rupee coins

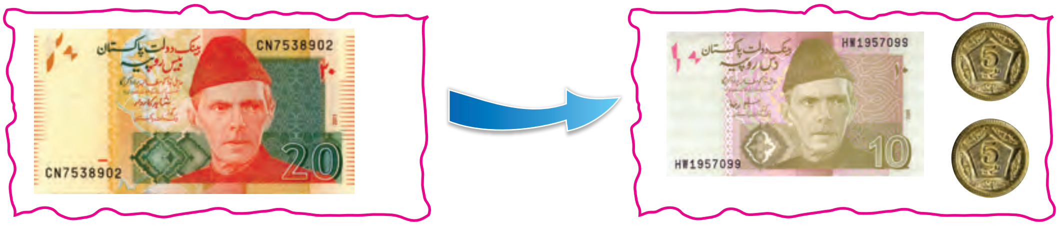
Rs 50 = Rs 10 + Rs 10 + Rs 10 + Rs 10 + Rs 10



One 100-rupee note = Five 20-rupee notes

Rs 100 = Rs 20 + Rs 20 + Rs 20 + Rs 20 + Rs 20

We can also change any amount of money for different combinations of coins and notes.

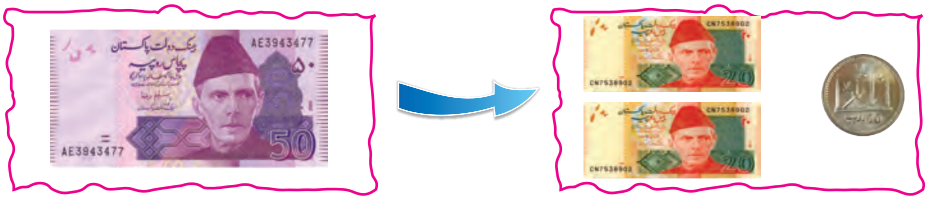


One 20-rupee note = One 10-rupee note and two 5-rupee coins

Rs 20 = Rs 10 + Rs 5 + Rs 5

TEACHING POINT

Use real money / paper money (coins and notes) and tell the students about different ways of exchanging money with its equivalent denominations.



One 50-rupee note = Two 20-rupee notes and one 10-rupee coin

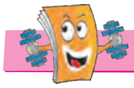
Rs 50 = Rs 20 + Rs 20 + Rs 10

One 100-rupee note = One 50-rupee note, two 20-rupee notes and one 10-rupee coin

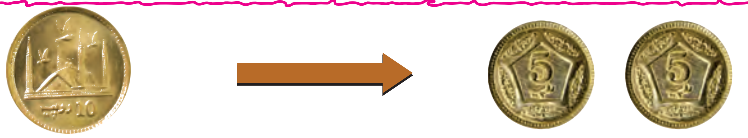
Rs 100 = Rs 50 + Rs 20 + Rs 20 + Rs 10

**Try Yourself**

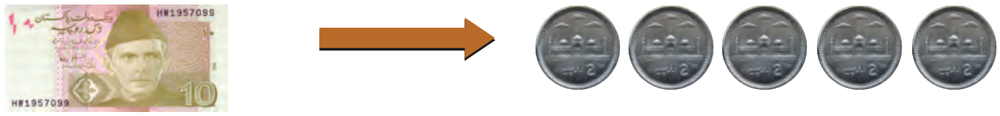
Can you think of other ways to exchange Rs 100?



## Complete the following:

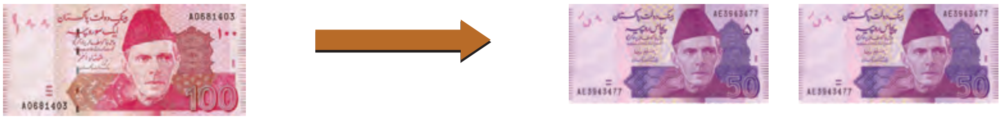


One 10-rupee coin = ( ___ ) 5-rupee coins



One 10-rupee note = ( ___ ) 2-rupee coins

One 50 rupee note = ( __ ) 20-rupee notes and ( __ ) 5-rupee coins



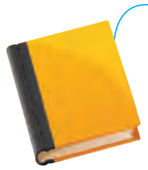
One 100-rupee note = ( __ ) 50-rupee notes

## Match the same amount of money.

**Hint**

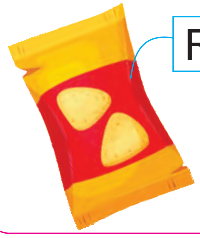
First add the values of notes and coins and then match.

Tick (✓) the box if you can buy the objects with the given money.


Rs 75

Rs 10

Rs 90


Rs 52

Rs 95

TEACHING POINT

Place a few toys with price tags on the table. Distribute paper coins and notes among the students and ask if they can buy these toys with the money they have.

# Addition and Subtraction of Money

Look at the following items:

Rs 25

Rs 40

Rs 65

Hassan buys a pack of biscuits and an ice-cream. How much money does he spend?

To find the total cost, we add.

| | | | | |
|---|---|---|---|---|
| Cost of a pack of biscuits | = | Rs | 2 | 5 |
| Cost of an ice-cream | = | + Rs | 4 | 0 |
| Total cost | = | Rs | 6 | 5 |

Hassan has Rs 50 only. He wants to buy a pack of coloured pencils of Rs 65. How much more amount does he need?

To find out more amount, we subtract.

| | | | | |
|---|---|---|---|---|
| Cost of the pack of coloured pencils | = | Rs | 6 | 5 |
| Hassan has | = | − Rs | 5 | 0 |
| More amount he needs | = | Rs | 1 | 5 |

**Try Yourself**

How much more does a pack of coloured pencils cost than the pack of biscuits?

TEACHING POINT

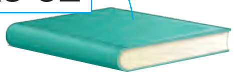
Place a few items with price tags on the table. Distribute paper coins and notes among the students. Ask them to buy any two items. Then ask them to estimate how much money did they spend and how much was left with them.

Look at the following items and their prices and then solve:

Rs 30

Rs 5

Rs 58


Rs 82

Abeeha bought a ball and a candy. How much money did she spend?

Cost of the ball = Rs 3 0

Cost of the candy = + Rs [ ] 5

Total money spent = Rs [ ] [ ]

Hamza wants to buy a water paint. He has Rs 42. How much more money does he need?

Cost of the water paint = Rs [ ] [ ]

Hamza has = – Rs [ ] [ ]

More money he needs = Rs [ ] [ ]

Maryam bought a water paint and a ball. How much money did she spend?

Cost of the water paint = Rs [ ] [ ]

Cost of the ball = + Rs [ ] [ ]

Total cost = Rs [ ] [ ]

Ali had Rs 95. He bought a book. How much money was left with Ali?

| | | | |
|---|---|---|---|
| Amount Ali had | = | | Rs ☐ ☐ |
| Cost of the book | = | – | Rs ☐ ☐ |
| Amount left | = | | Rs ☐ ☐ |

**Hint**

Subtraction is used to find out the remaining amount.

## I have learnt

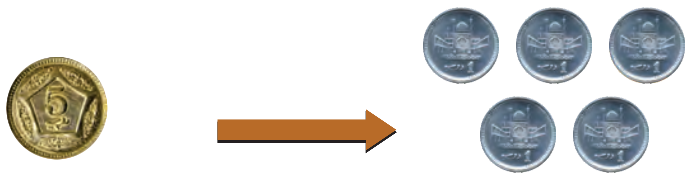
- identify Pakistani currency coins (Rs 1, 2, 5 and10).
- identify Pakistani currency notes (Rs 10, 20, 50 and 100).
- recognize money change (up to 100) to its equivalents/denominations
- add and subtract price of objects.

**Vocabulary**

- Money/Amount
- Coin
- Note
- Value
- Denominations
- Exchange

## Review Exercise

1. Complete the following:

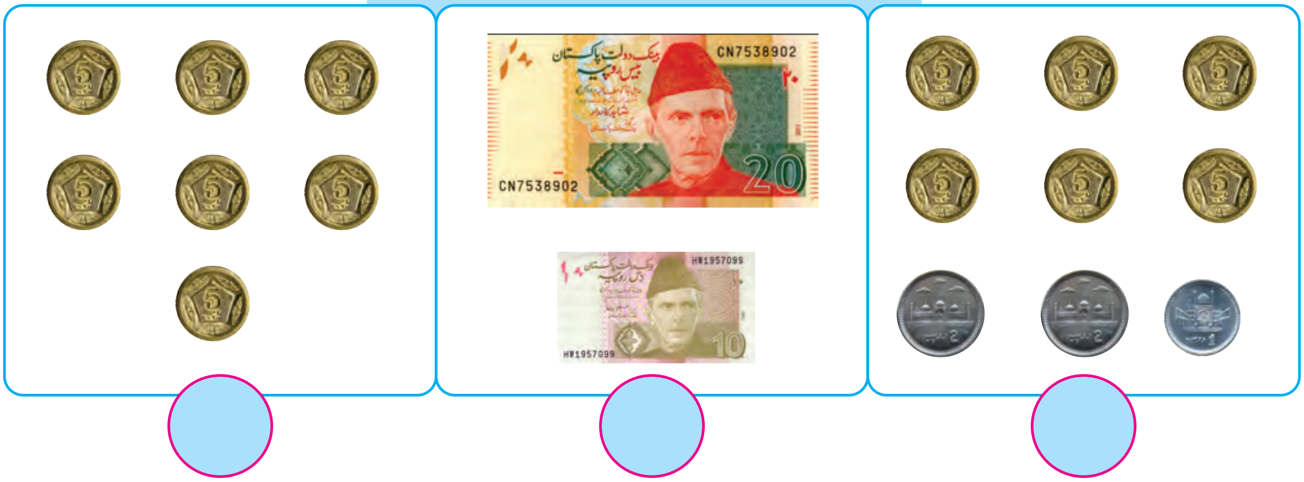


One 5-rupee coin = ( ______ ) 1-rupee coins

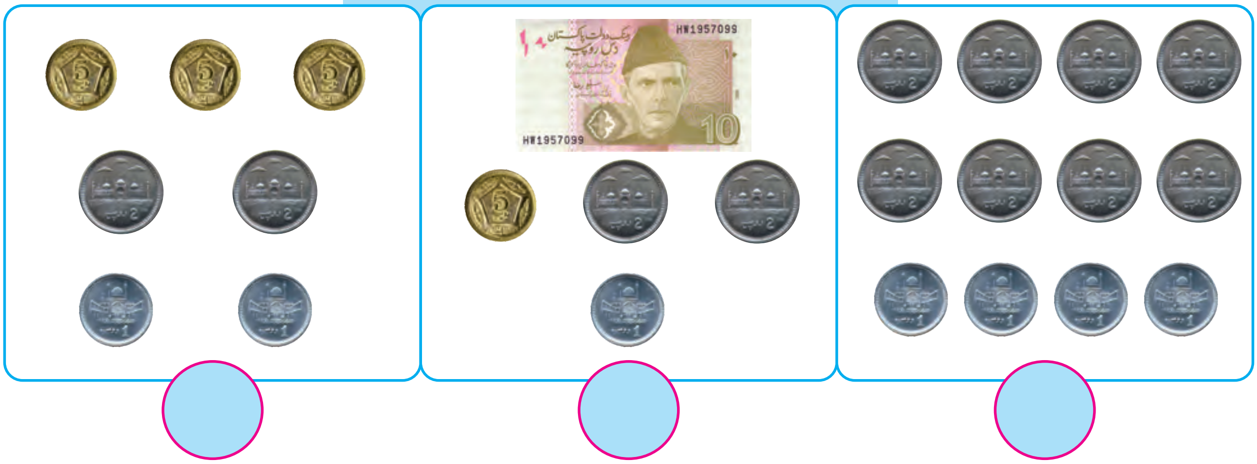
One 50-rupee note = ( ____ ) 10-rupee notes

2. Tick(✓) the group with the correct amount.

Rs 30



Rs 20



3. Count and write the correct amount.

Rs

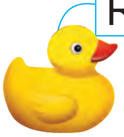
Rs

Rs

Rs

4. Look at the following items and their price and then solve:

Rs 63



Rs 25

Rs 70

Harris bought a train and a duck from a toy store. How much money did he spend?

| | | |
|---|---|---|
| Cost of the train | = | Rs ☐ ☐ |
| Cost of the duck | = | + Rs ☐ ☐ |
| Total money spent | = | Rs ☐ ☐ |

Ayesha wants to buy a teddy bear. She has Rs 50. How much more money does she need?

| | | |
|---|---|---|
| Cost of the teddy bear | = | Rs ☐ ☐ |
| Ayesha has | = | – Rs ☐ ☐ |
| More amount she needs | = | Rs ☐ ☐ |

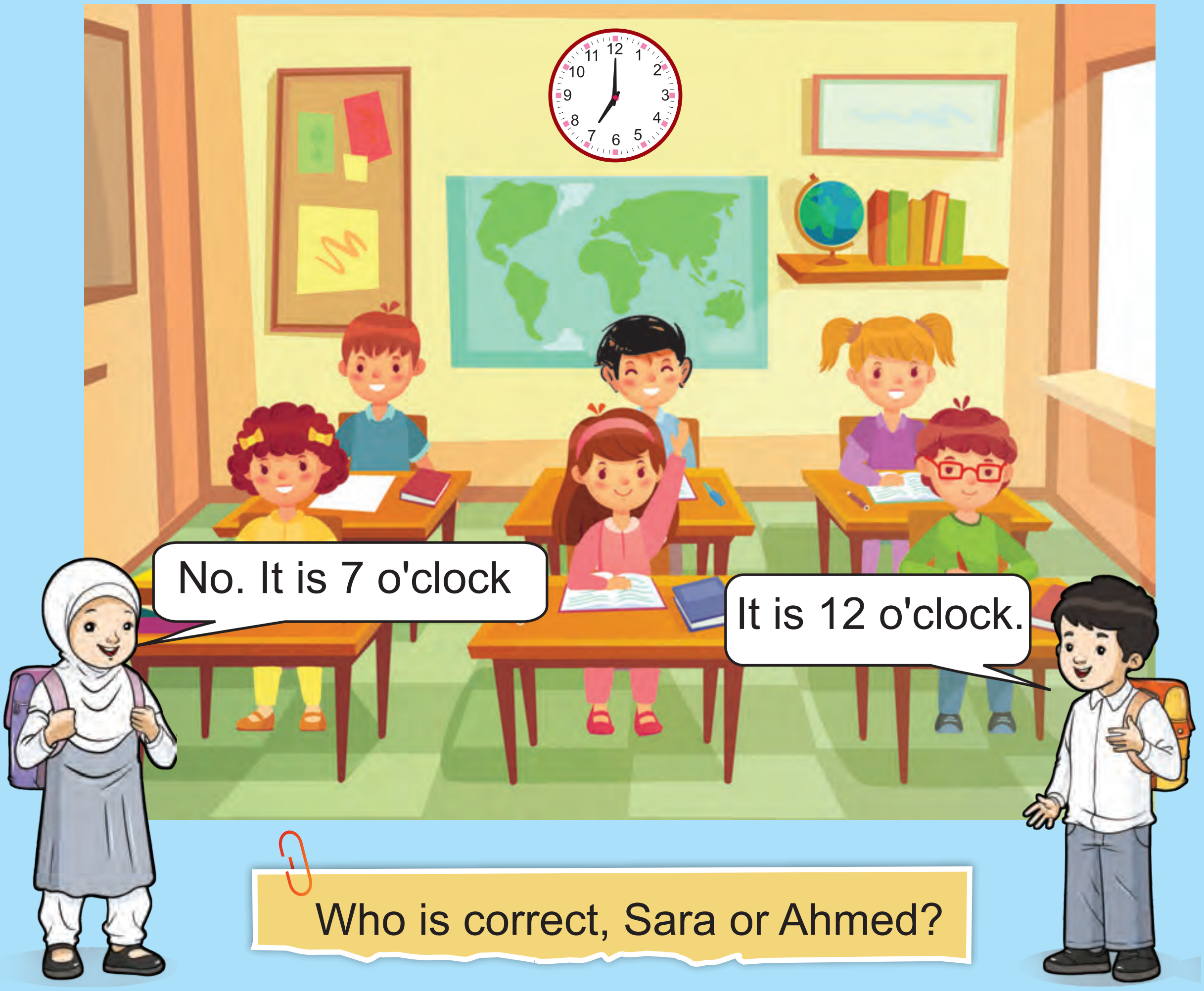
# Unit 5

# Time

## Learning Outcomes

After completing this unit, you will be able to:

- Recognize the hour and minute hands of an analog clock.
- Read and tell time in hours from the analog clock for example 2 o'clock.
- Read and tell time in hours from the digital clock.
- Name of days of the week in order .
- Identify which day comes after/before a particular day.
- Name (orally) the solar months of the year.
- Name (orally) the Islamic months of the year.




Who is correct, Sara or Ahmed?

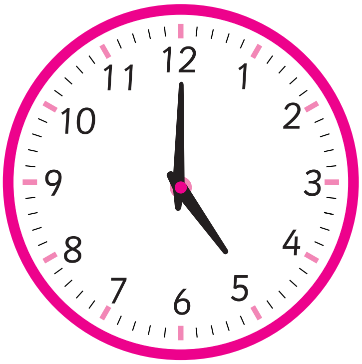
# Clock

What tells us the time?

A clock tells us the time.

There are two types of clocks.

- Analog clock
- Digital clock



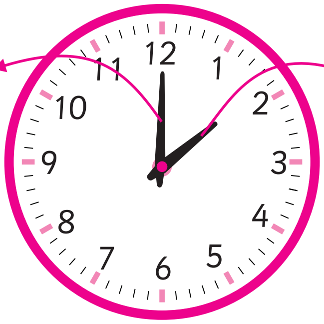

## Analog Clock

Look at this clock.

It is an analog clock.

It has two hands, a minute hand and an hour hand which tells us the time.

The long hand is called the minute hand.
It shows the time in minutes.




The short hand is called the hour hand.
It shows the time in hours.

The analog clock has numbers from 1 to 12 in order.
The above clock shows that the hour hand is at 2 and the minute hand is at 12. We can say that the time is 2 o'clock.

Let's read the time on the analog clocks below.

3 o'clock

4 o'clock

8 o'clock

**Key Fact**

In an analog clock, the time is expressed with the help of clock hands.

## Digital Clock

Look at this clock.

It is a digital clock.

It shows the hours.

It shows the minutes.

The digital clock has no hands. It tells us the time in digits. We can say that the time is 7 o'clock.

TEACHING POINT

Place ten flash cards of digital and analog clock that show different time in hours. Make two teams of students (Team A and Team B). Give five flash cards to each team. Instruct team A to show the flash cards of time on the digital clock and team B to show the same time on analog clock.

Let's read the time on the digital clocks below.

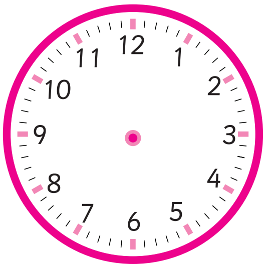
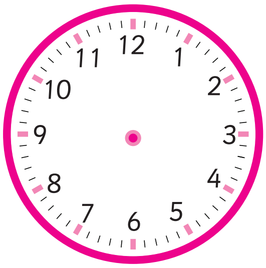
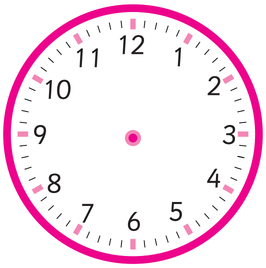
1 o'clock

4 o'clock

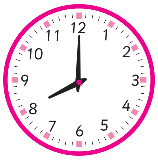
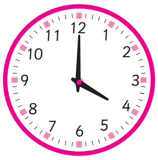
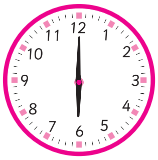
11 o'clock

Write the time by looking at each clock.

## Draw hands to show the correct time.

|  |  |  |
|---|---|---|
| 6 o'clock | 9 o'clock | 12 o'clock |

## Tick (✓) the digital clock to show the time on the analog clock to the left.

| | | | |
|---|---|---|---|
|  | ☐ 6:00 | ☐ 8:00 | ☐ 7:00 |
|  | ☐ 3:00 | ☐ 5:00 | ☐ 4:00 |
|  | ☐ 6:00 | ☐ 8:00 | ☐ 7:00 |
| | ☐ 10:00 | ☐ 9:00 | ☐ 11:00 |
| | ☐ 11:00 | ☐ 10:00 | ☐ 12:00 |

**Try Yourself**

At what time do you go to school in the morning?

# Days of the Week

How many days are there in a week?

There are seven days in a week.

1st Monday

2nd Tuesday

3rd Wednesday

4th Thursday

5th Friday

6th Saturday

7th Sunday

**Key Fact**

1 week = 7 days

**Try Yourself**

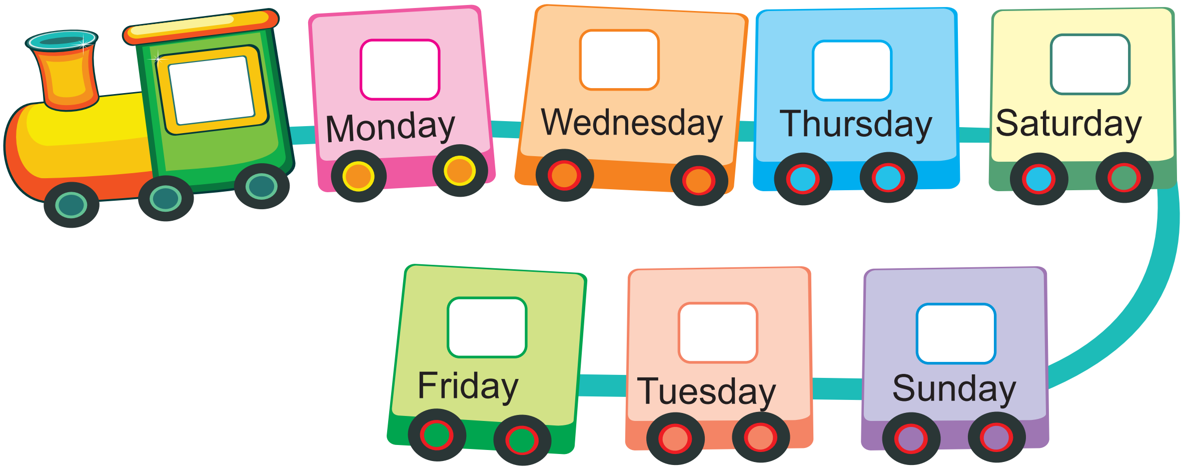
What is the day of your birthday?

TEACHING POINT: Encourage the students to read and learn rhymes of days of the week.

Which day comes before Tuesday?

The first day of the week is Monday and the second day is Tuesday. So, Monday comes before Tuesday.

Write the correct ordinal number for each day of the week.




Colour the box with the correct answer.

| | | |
|---|---|---|
| Which day comes before? | Thursday | Wednesday |
| Which day comes after? | Sunday | Saturday |
| Which is the first day of the week? | Friday | Monday |
| Which is the last day of the week? | Monday | Sunday |

**Try Yourself**

Which day do you take a day off from school?

# Solar Months

Encourage the students to name the solar months orally.

# Islamic Months

These are months of the Lunar year which are called Islamic months.

- 1st Muharram
- 2nd Safar
- 3rd Rabi-ul-Awwal
- 4th Rabi-ul-Sani
- 5th Jamadi-ul-Awwal
- 6th Jamadi-ul-Sani
- 7th Rajab
- 8th Shaaban
- 9th Ramazan
- 10th Shawwal
- 11th Ziq'ad
- 12th Zil Hajj

**Key Fact**

RAMAZAN is the 9th Islamic month.

**Try Yourself**

In which Holy month is Hajj performed?

TEACHING POINT: Encourage the students to name the Islamic months orally.

Match each solar month with the correct ordinal number.

| | |
|---|---|
| January | 1st |
| March | 2nd |
| May | 3rd |
| July | 4th |
| October | 5th |
| April | 6th |
| June | 7th |
| December | 8th |
| September | 9th |
| August | 10th |
| November | 11th |
| February | 12th |

Colour the box with the correct answer.

| | | |
|---|---|---|
| Which Islamic month comes before Safar? | Jamadi-ul -Sani | Muharram |
| Which is the first Islamic month? | Muharram | Zil Hajj |
| Which is the last Islamic month? | Zil Hajj | Ziq'ad |
| Which Islamic month comes after Shaaban? | Shawwal | Ramazan |

**Try Yourself**

In which month Eid-ul-Fitr is celebrated?

## I have learnt

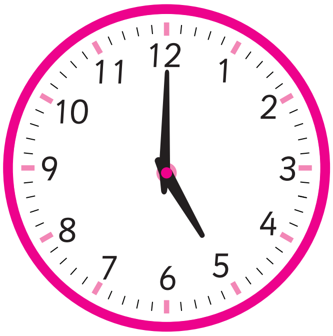
- read and tell the time in hours by identifying the hour and minute hands of the analog clock.
- read and tell the time in hours from the digital clock.
- name the days of the week in order.
- name (orally) the solar months of the year.
- name (orally) the Islamic months of the year.

**Vocabulary**

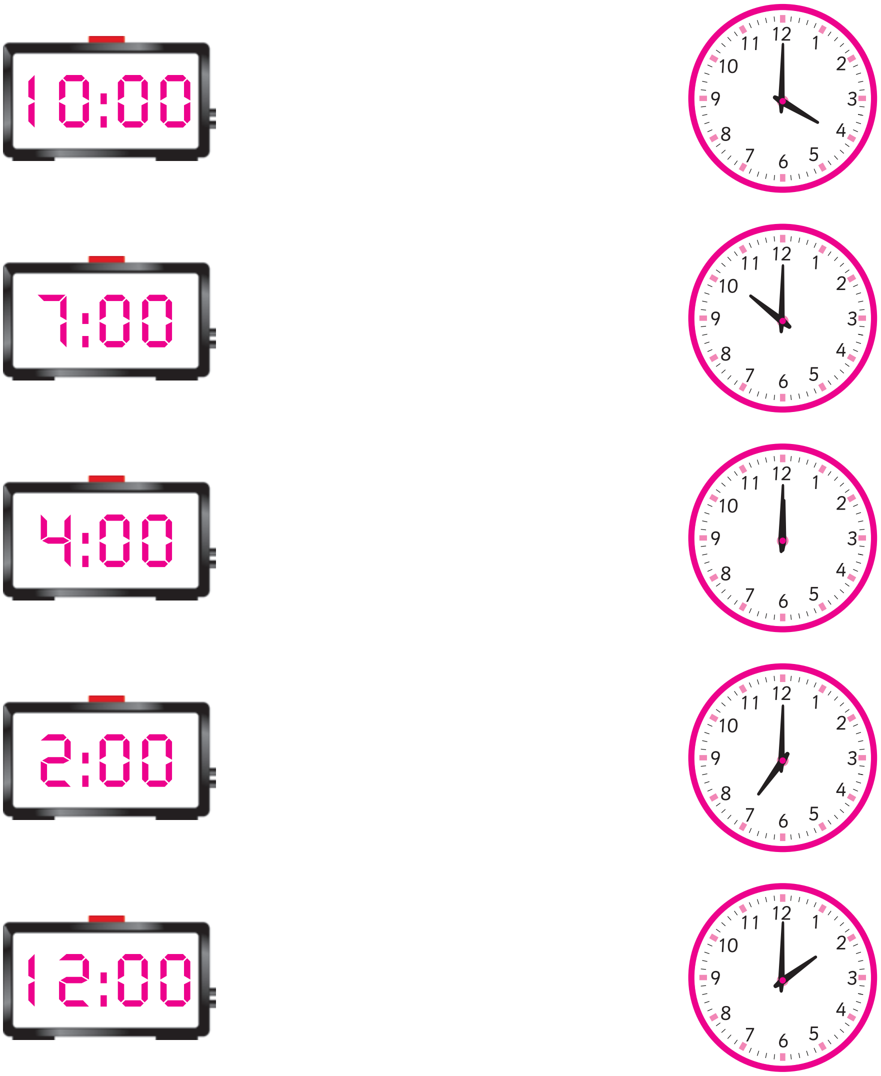
- Analog clock
- Digital clock
- Day
- Week
- Month
- Year
- Lunar
- Solar
- Islamic

## Review Exercise

1. Write down the time by looking at each clock.



2. Look at the time in a digital clock and match it with an analog clock.




3. Colour the box with the correct answer.

| | | |
|---|---|---|
| Which day comes before Friday? | Thursday | Saturday |
| Which day comes after Monday? | Sunday | Tuesday |
| Which is the 3rd day of the week? | Tuesday | Wednesday |
| Which solar month comes before May? | June | April |

Which is the first solar month? February January

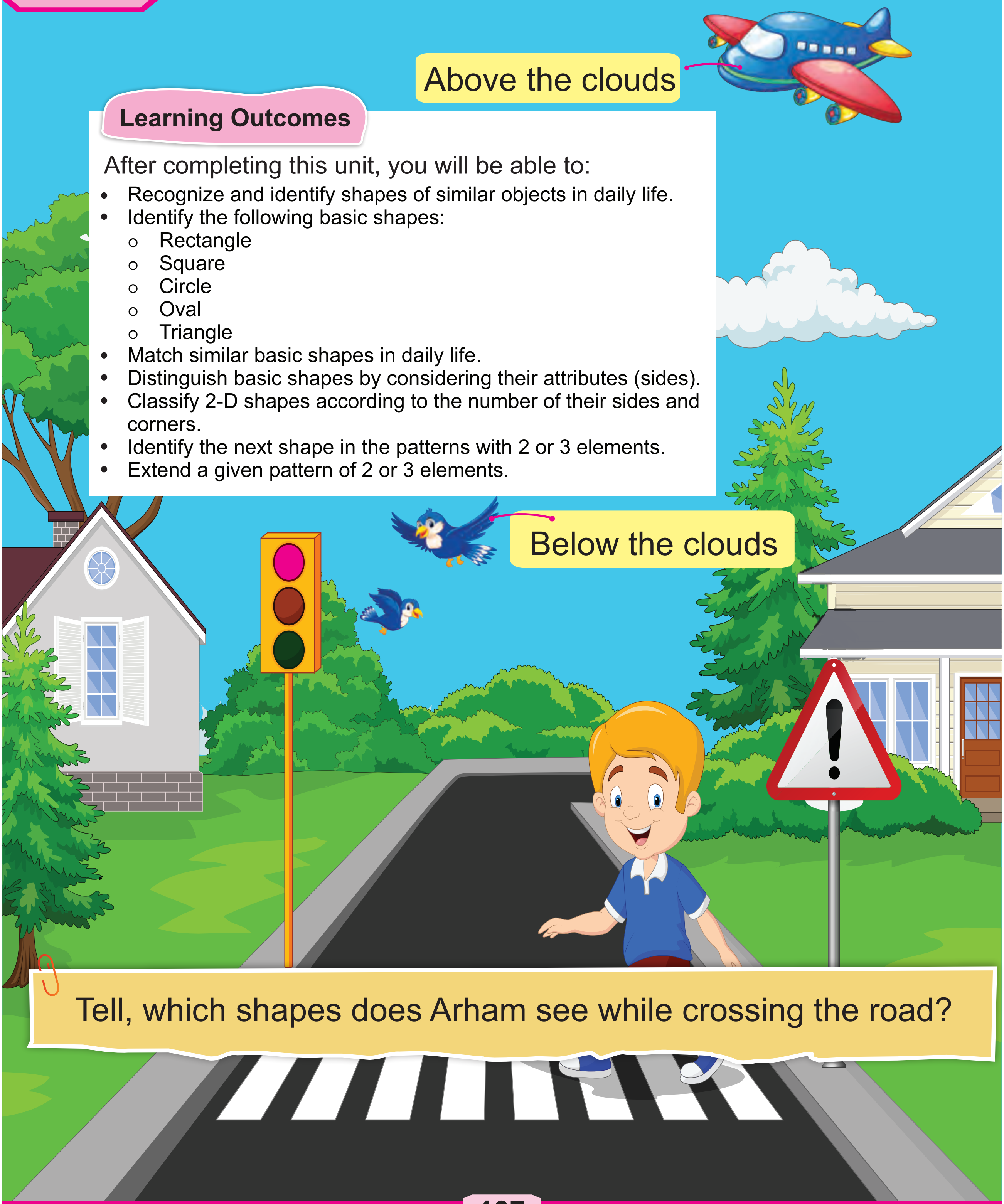
In which month do we celebrate Independence Day? March August

4. Match each Islamic month with the correct ordinal number.

| | |
|---|---|
| Safar | 5th |
| Ramazan | 2nd |
| Rajab | 7th |
| Muharram | 1st |
| Jamadi-ul-Awwal | 10th |
| Zil Hajj | 6th |
| Shawwal | 3rd |
| Jamadi-ul-Sani | 4th |
| Ziq'ad | 12th |
| Rabi-ul-Sani | 9th |
| Shaaban | 11th |
| Rabi-ul-Awwal | 8th |

Unit 6

# Geometry




## Learning Outcomes

After completing this unit, you will be able to:

- Recognize and identify shapes of similar objects in daily life.
- Identify the following basic shapes:
  - Rectangle
  - Square
  - Circle
  - Oval
  - Triangle
- Match similar basic shapes in daily life.
- Distinguish basic shapes by considering their attributes (sides).
- Classify 2-D shapes according to the number of their sides and corners.
- Identify the next shape in the patterns with 2 or 3 elements.
- Extend a given pattern of 2 or 3 elements.

Tell, which shapes does Arham see while crossing the road?

# Basic 2-D Shapes

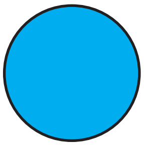
Let's read the rhyme of 2-D shapes.

We are 2-D shapes,
We spread a net everywhere,
You can find us everywhere,
We make friends everywhere,

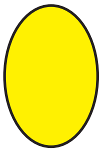
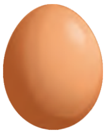
**Key Fact**

Everything we see around us has some shape.

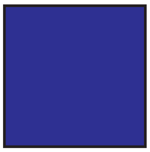
Circle circle is my name,
Round and round, never stop again,
Look at the wheel, it looks like me.



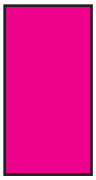
Oval oval is my name,
Circle and I are not the same,
Look at the egg, it looks like me.

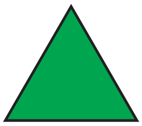
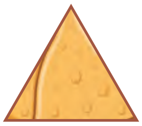
Square square is my name,
My 4 sides are the same,
Look at the carrom, it looks like me.



Rectangle Rectangle is my name,
My 4 sides are not the same,
Look at the door, it looks like me.

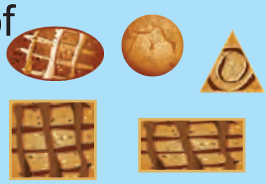


Triangle triangle is my name,
Look at me, look at me,
Count my sides one, two, three,
Look at the snack, it looks like me.

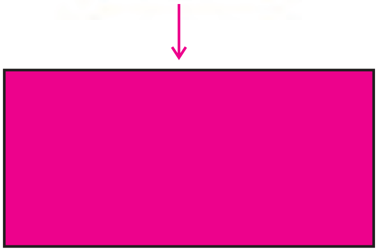
Show some cut-outs of 2-D shapes to the students and ask them to read the above rhyme looking at the shapes.

On my birthday, my father brought a box of biscuits. There were biscuits of different shapes in it. Let's identify the different shapes by looking at these biscuits.

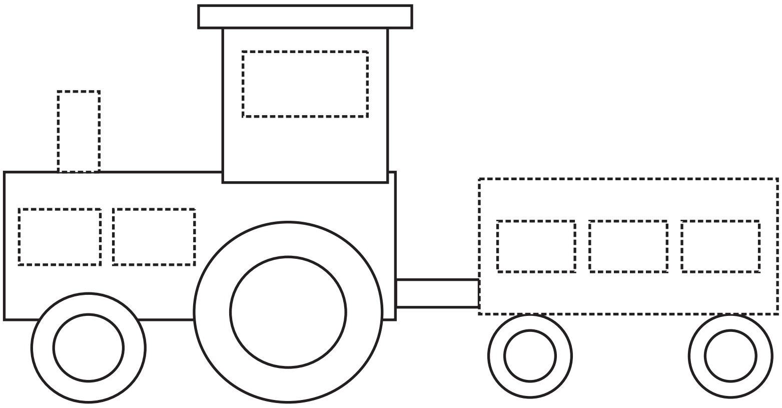


## Rectangle

I have a rectangle-shaped biscuit. It has 4 corners and 4 sides.



Complete the picture by joining the dots and colour all the rectangles.



### Try Yourself

What is the shape of our national flag?

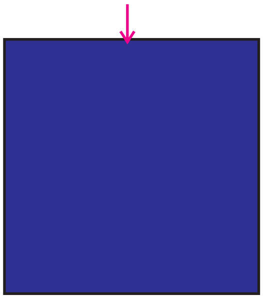
Show flash cards of a few rectangular objects that we use in our daily life to the students. Ask them to name these objects.

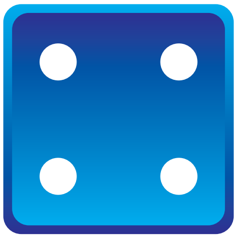
# Square

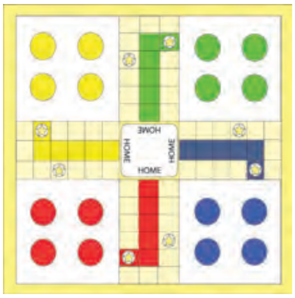
**Try Yourself**

What is the difference between a rectangle and a square?

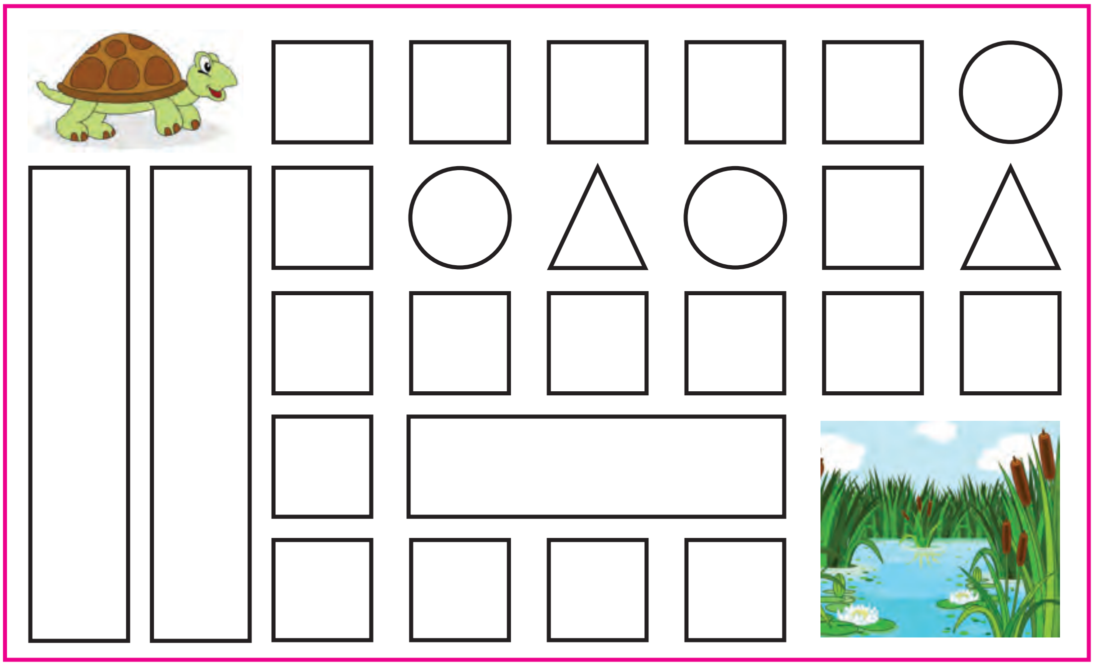
I have a square shaped biscuit.
It has 4 corners and 4 sides.







Help the tortoise to reach the pond by colouring the squares only.

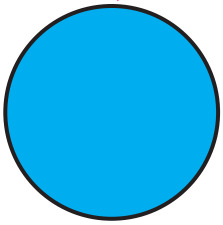


With the relevance of the objects given above, ask the students to name some of the square objects that they use in their daily life.

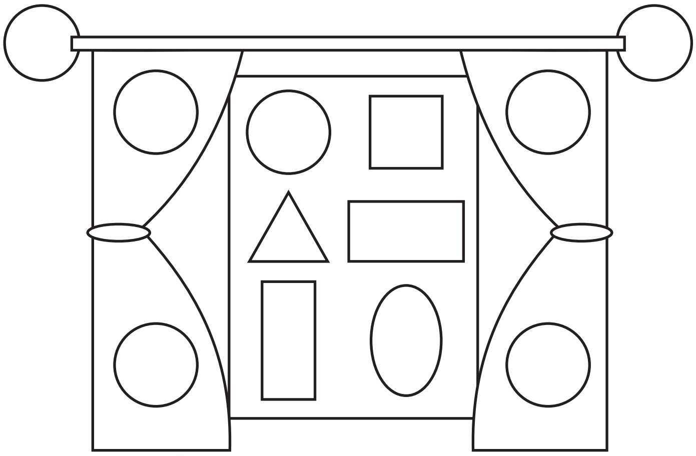
## Circle

I have a circle shaped biscuit.

It has 0 corners and 0 sides.



Colour all the circles in the picture below.



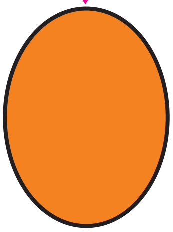
TEACHING POINT

Take the students to the school ground and draw a few shapes on the walking footpath with chalk. Now ask them to step on the circles. At the end, ask them to count how many circles are there?

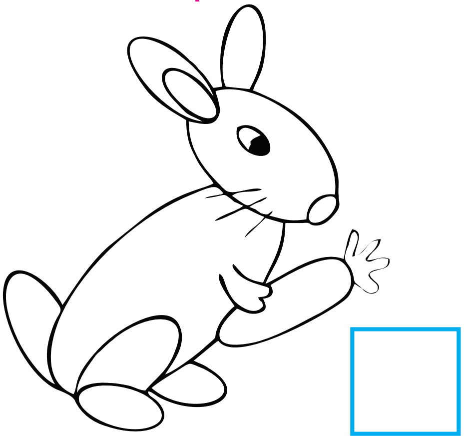
## Oval

I have an oval shaped biscuit.

It has 0 corners and 0 sides.



Colour the picture and tell how many ovals are there?

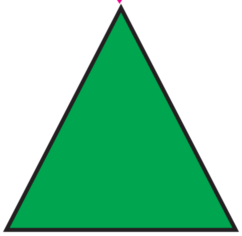


Show some circle and oval shaped objects to the students and ask them to identify the circle and oval shapes.

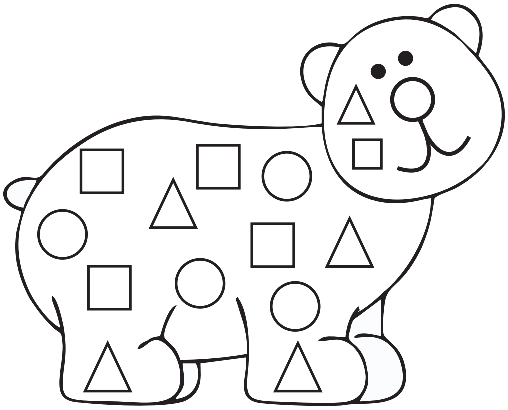
## Triangle

I have a triangle shaped biscuit.

It has 3 corners and 3 sides.



Find the triangles in the picture and colour them green.



Put some flash cards of different shapes in a basket and place it on the table. Ask the students to pick and show all the triangles.

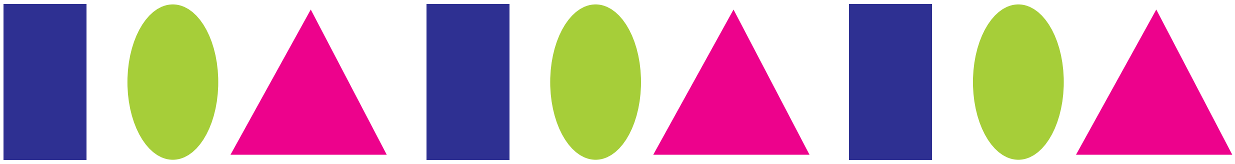
# Patterns

We can make patterns with different shapes, colours and sizes.

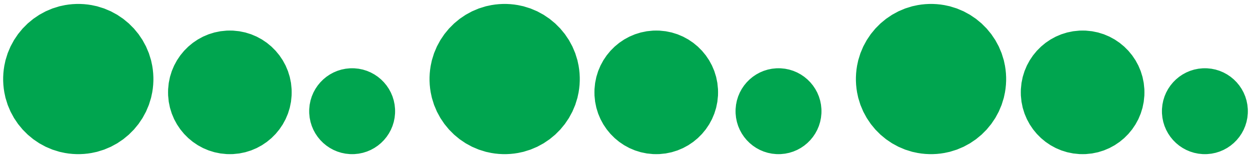
Let's observe the following patterns:

This pattern is made of different shapes.

This pattern is made of different colours.



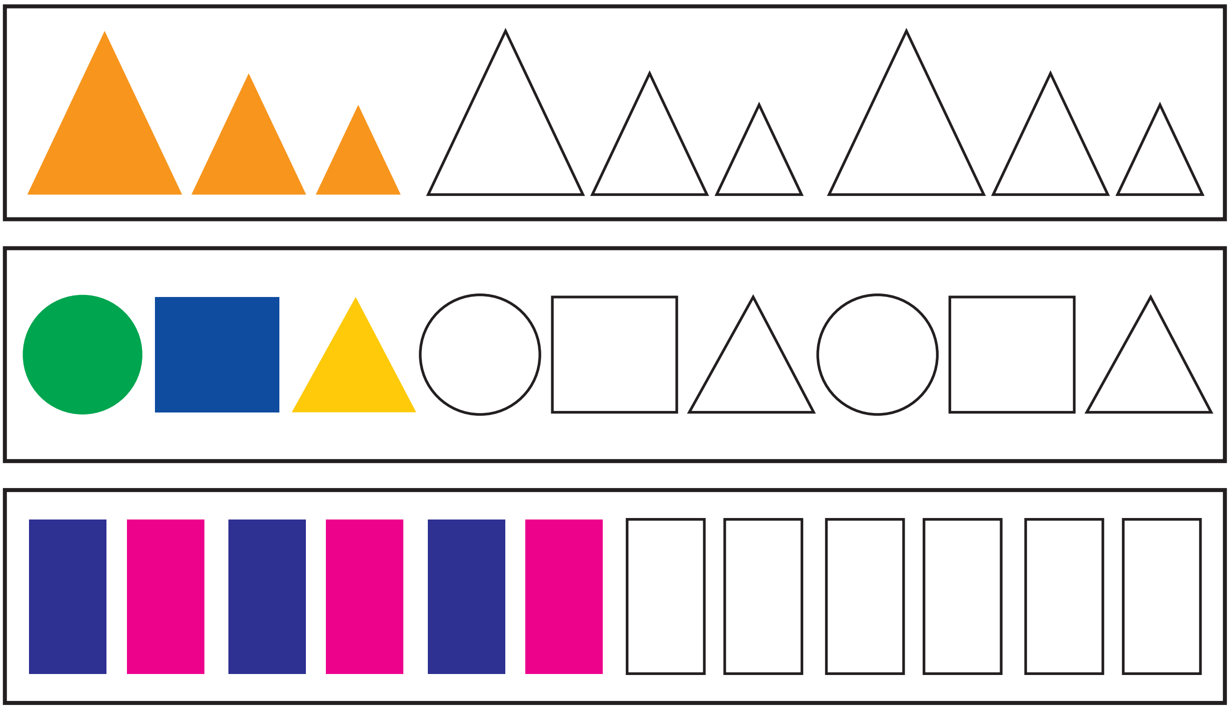
This pattern is made of different shapes and colours.



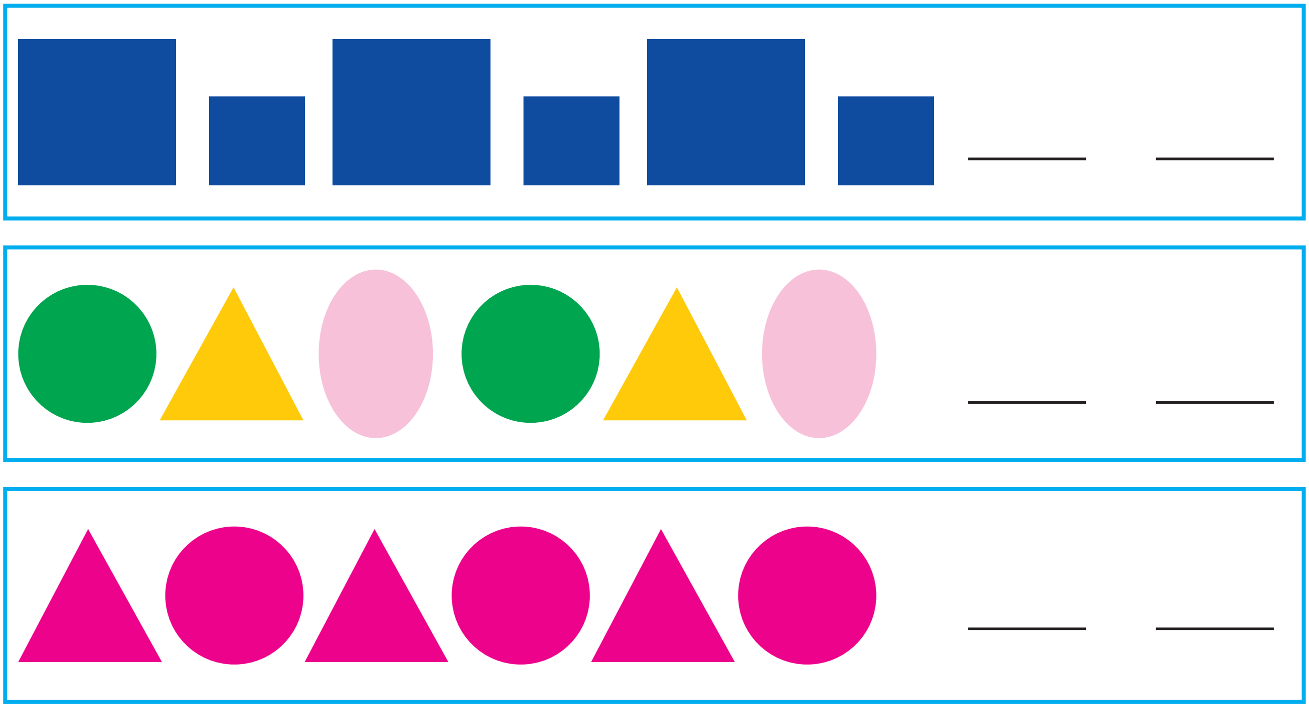
This pattern is made of circles of different sizes.

Draw different objects on the writing board to illustrate the patterns and give a few more examples from the classroom/daily life.

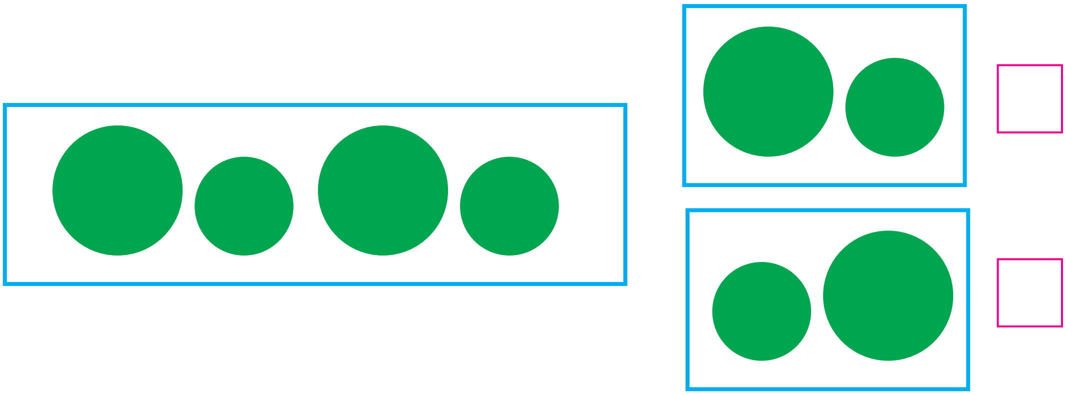
Colour the shapes to complete the patterns.

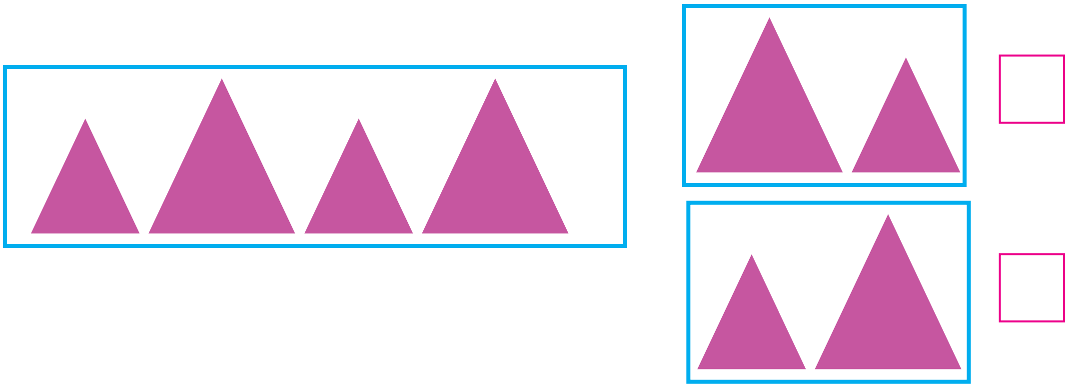


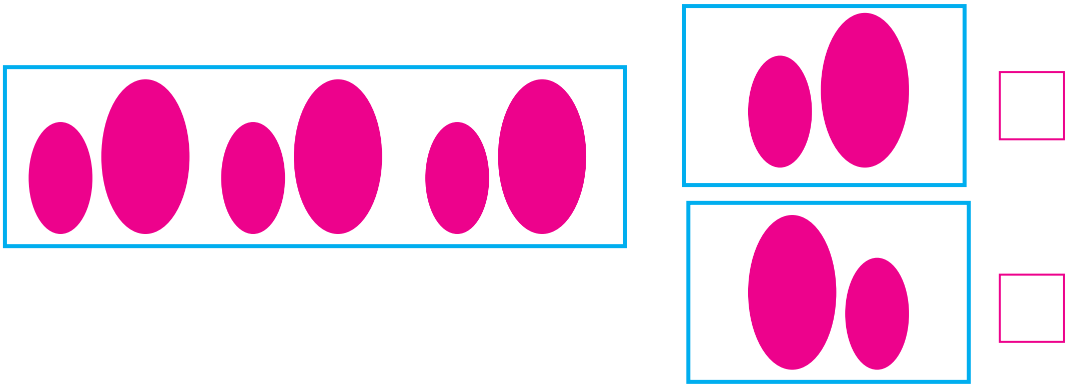
Complete the patterns.



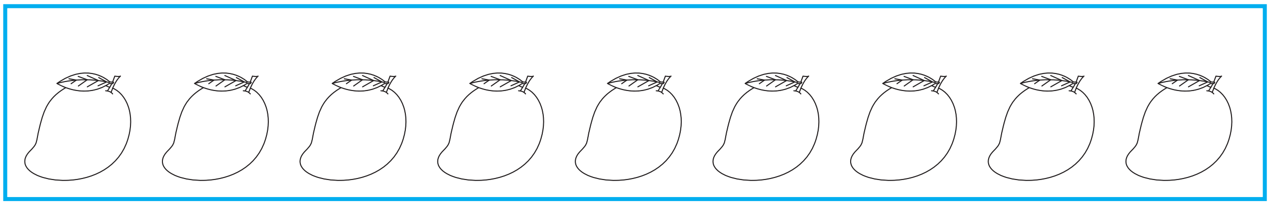
Tick (✓) the correct box to complete each pattern.

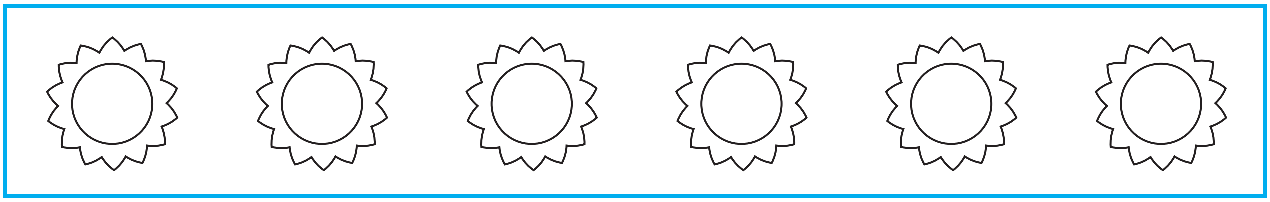






Colour the objects to create patterns of your own choice.





# Position

## Learning Outcomes

After completing this portion, you will be able to:

- Identify whether an object is placed
- Inside or outside
- Above or below
- Over or under
- Far or near
- Before or after of a given picture.

Who is outside the room?

# Inside or Outside

Samra is inside the tent.

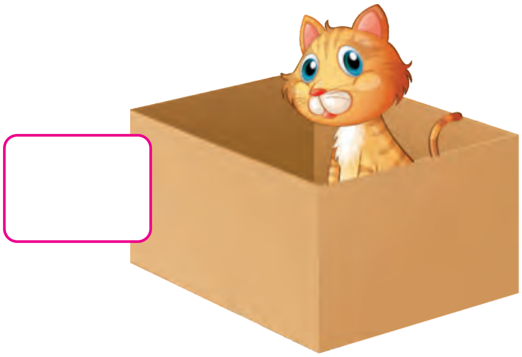
Saad is outside the tent.

**Try Yourself**

What is inside your bag?

Ask the students to observe their surroundings and identify things that are inside or outside of something.

Tick (✓) the picture where the cat is outside the box.



Colour the jar where the biscuits are inside.

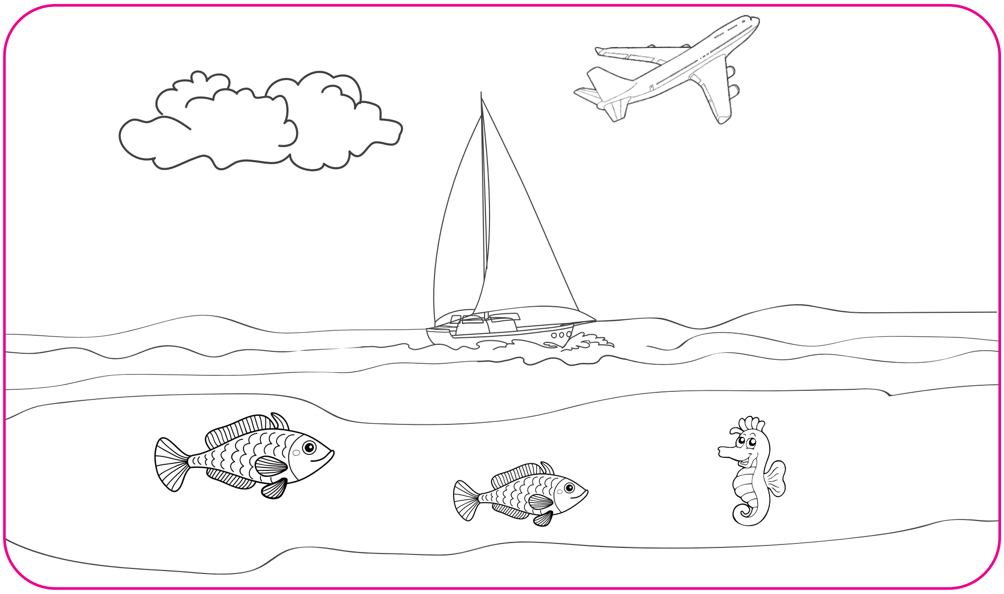
Encircle the hen and chicks which are outside their home.

# Above or Below

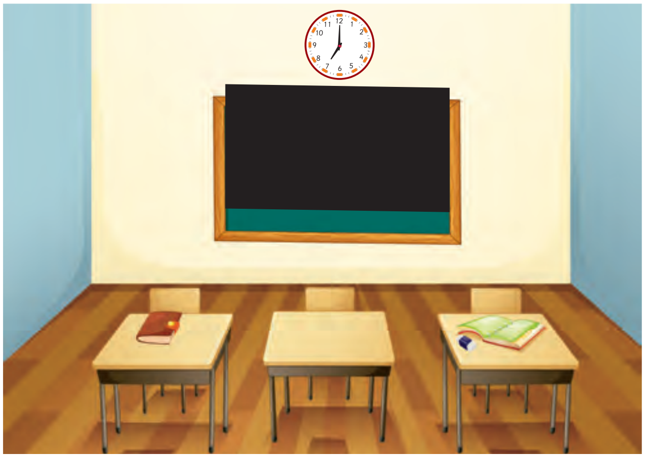
Explain the terms 'above' and 'below' to the students. Ask them to observe their surrounding and tell the things that are above and below of something.

Tick (✓) the picture where the plane is above the clouds.

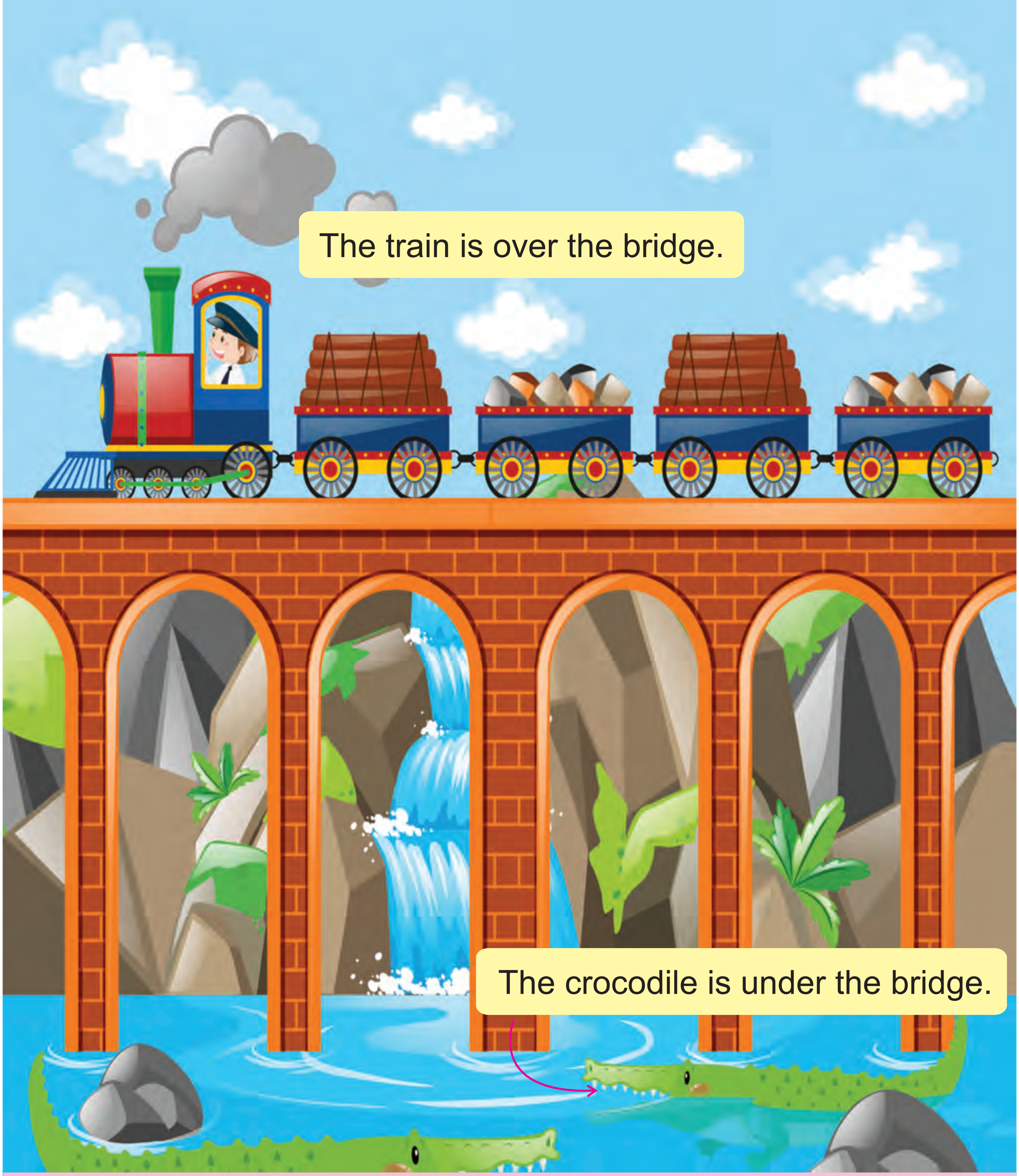
Colour the objects that are below the boat.



Encircle the object that is above the writing board.



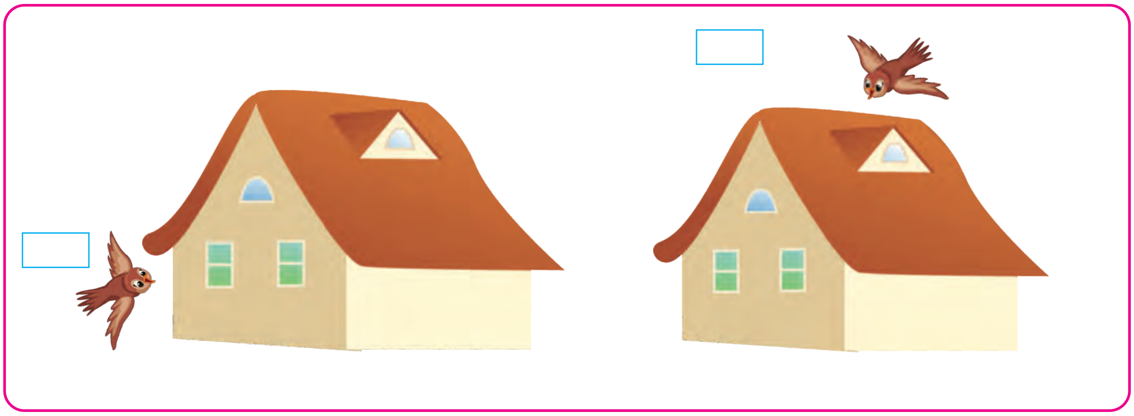
# Over or Under




TEACHING POINT

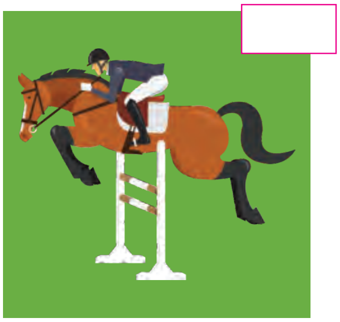
Take the students out of the classroom for a walk. Then ask them to observe their surroundings and identify, position of things that are 'over' or 'under'.

Tick (✓) the picture where the bird is over the house.

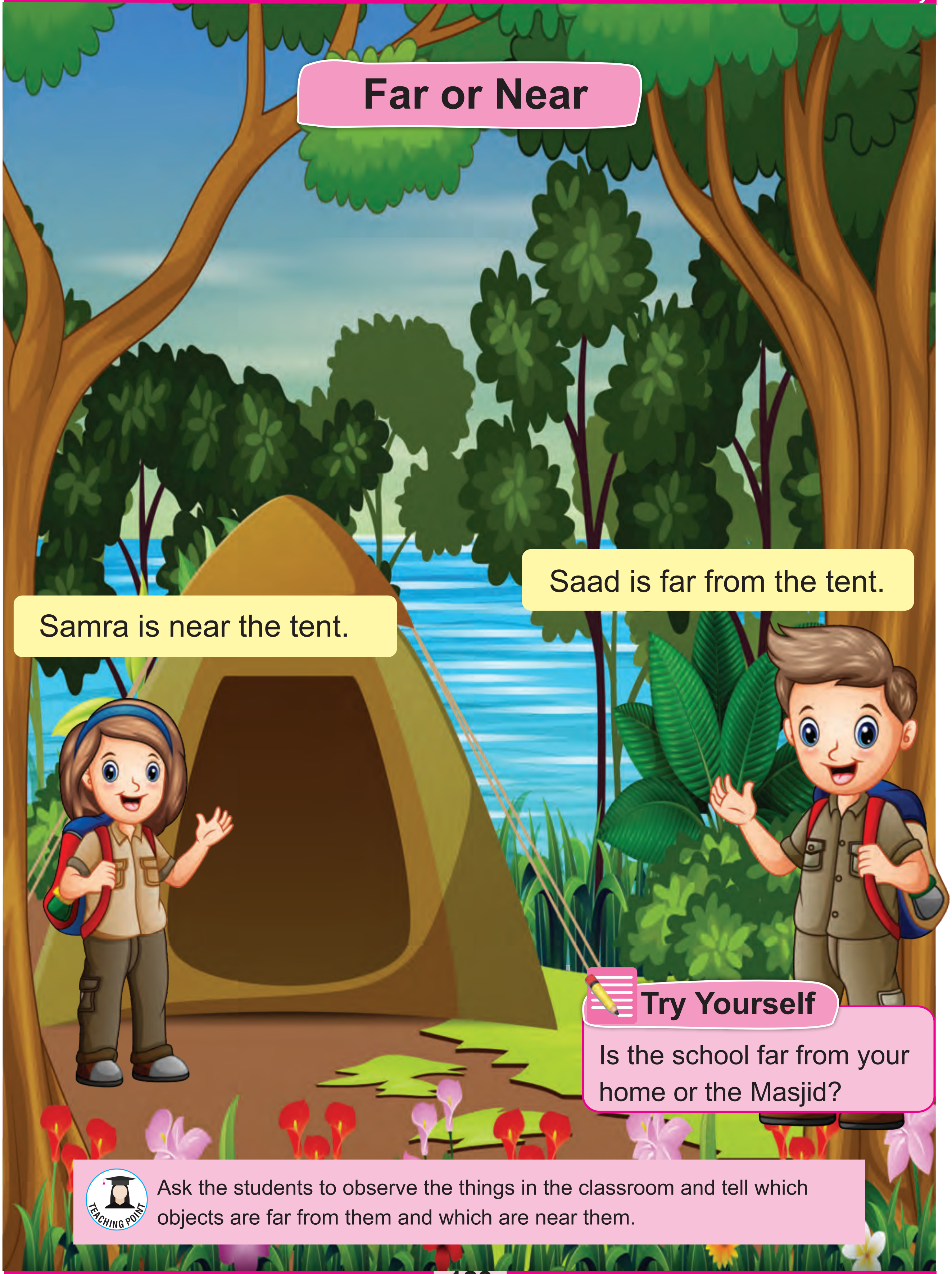


Encircle the boy who is under the slide.

Tick (✓) the picture where the horse is over the fence.



# Far or Near

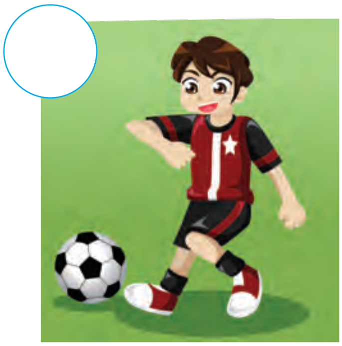



## Try Yourself

Is the school far from your home or the Masjid?

Ask the students to observe the things in the classroom and tell which objects are far from them and which are near them.

Tick (✓) the picture where the child is far from the football.



Encircle the cow which is near the house.

Encircle the duck which is far from the pond.

# Before or After

## Try Yourself

Who is sitting before you in the classroom?

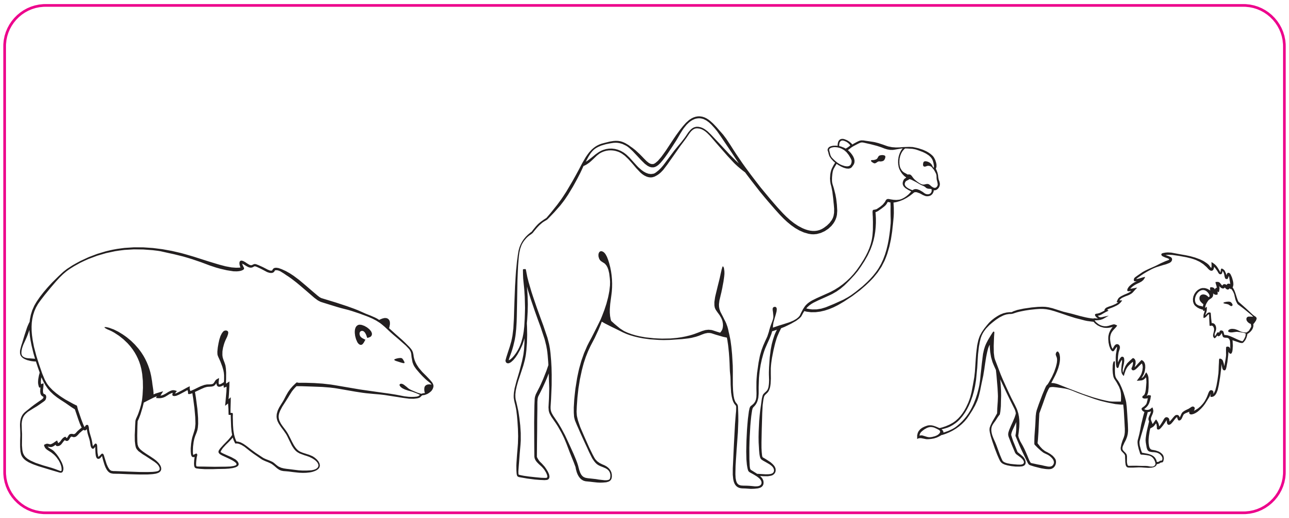
TEACHING POINT

Ask the students to make a queue and then call the name of one student and ask him/her to tell the name of the student who is standing before and after him/her.

Encircle the girl who is standing before the boy.

Encircle the vehicle which is standing after the bus.

Colour the animal which is before the camel and cross (×) the one that is after it.



## I have learnt

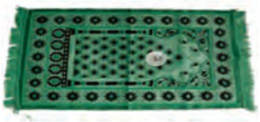
- recognize and identify shapes of similar objects in daily life.
- identify the following basic shapes:
  - rectangle
  - square
  - circle
  - oval
  - triangle
- classify 2-D shapes according to the number of sides and corners.
- complete the patterns by considering shapes, colours and sizes.
- identify whether an object is placed
  - inside or outside
  - above or below
  - over or under
  - far or near
  - before or after of a given picture.

### Vocabulary

- Shapes
- Rectangle
- Square
- Circle
- Oval
- Triangle
- Pattern
- Inside or outside
- Above or below
- Over or under
- Far or near
- Before or after

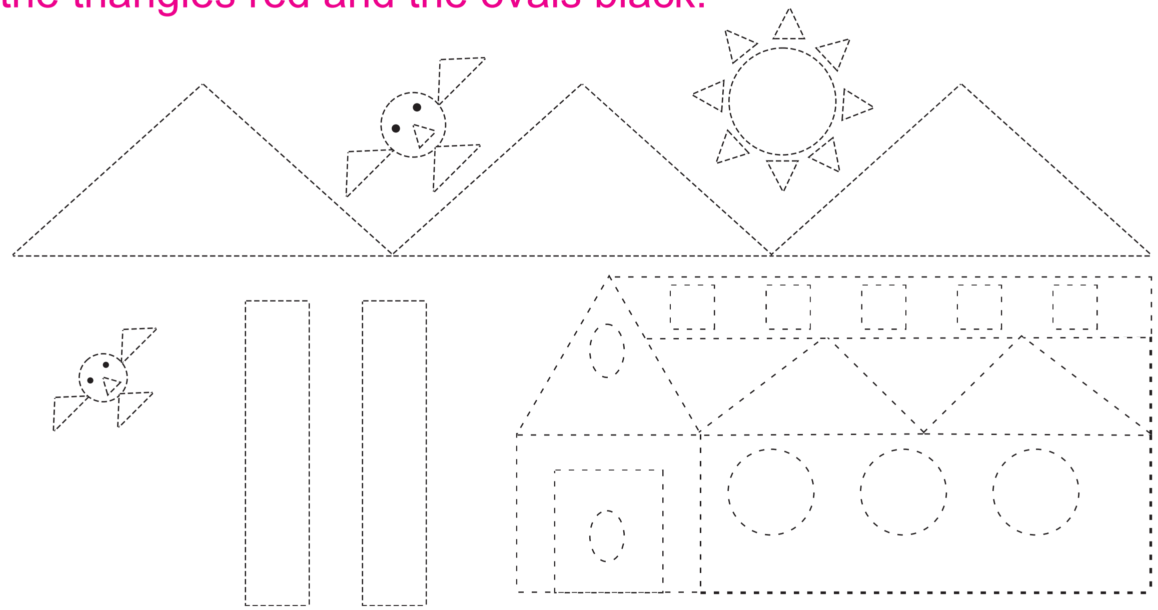
## Review Exercise

1. Write the correct name, number of sides and corners of these daily life objects.

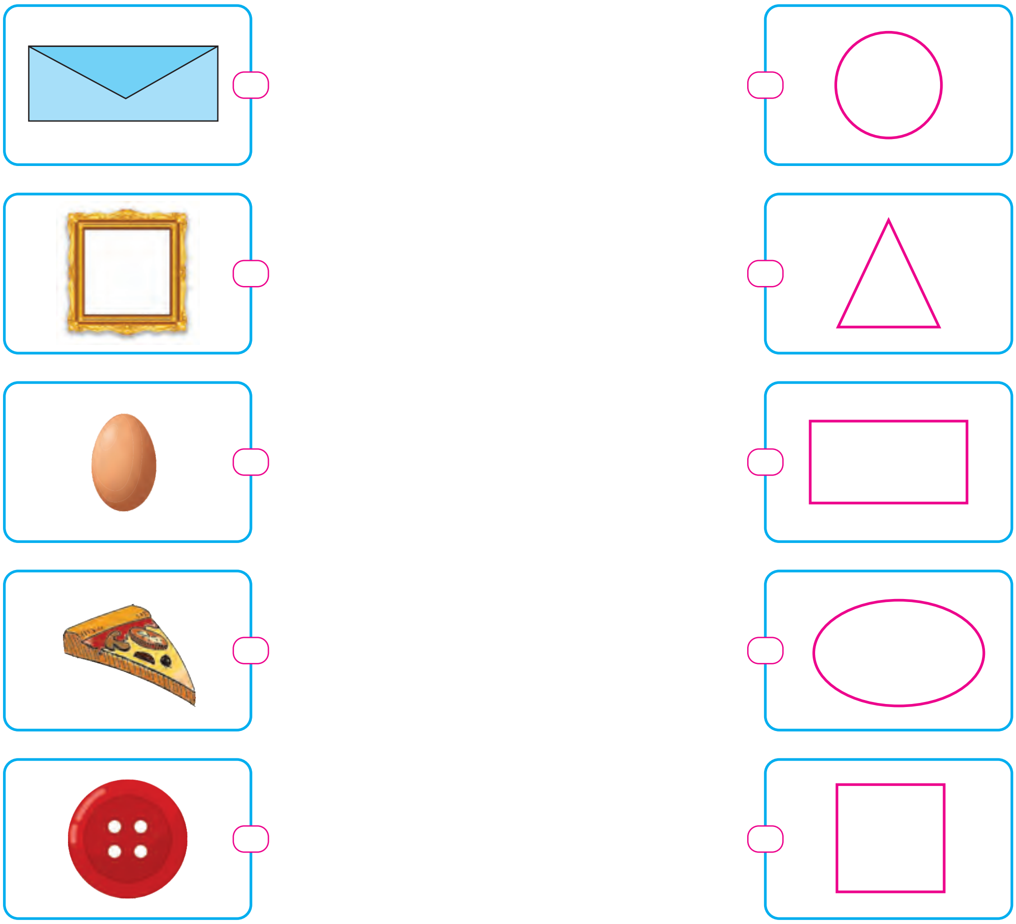


| | | | | |
|---|---|---|---|---|
| Name: | Name: | Name: | Name: | Name: |
| Sides: | Sides: | Sides: | Sides: | Sides: |
| Corners | Corners | Corners | Corners | Corners |

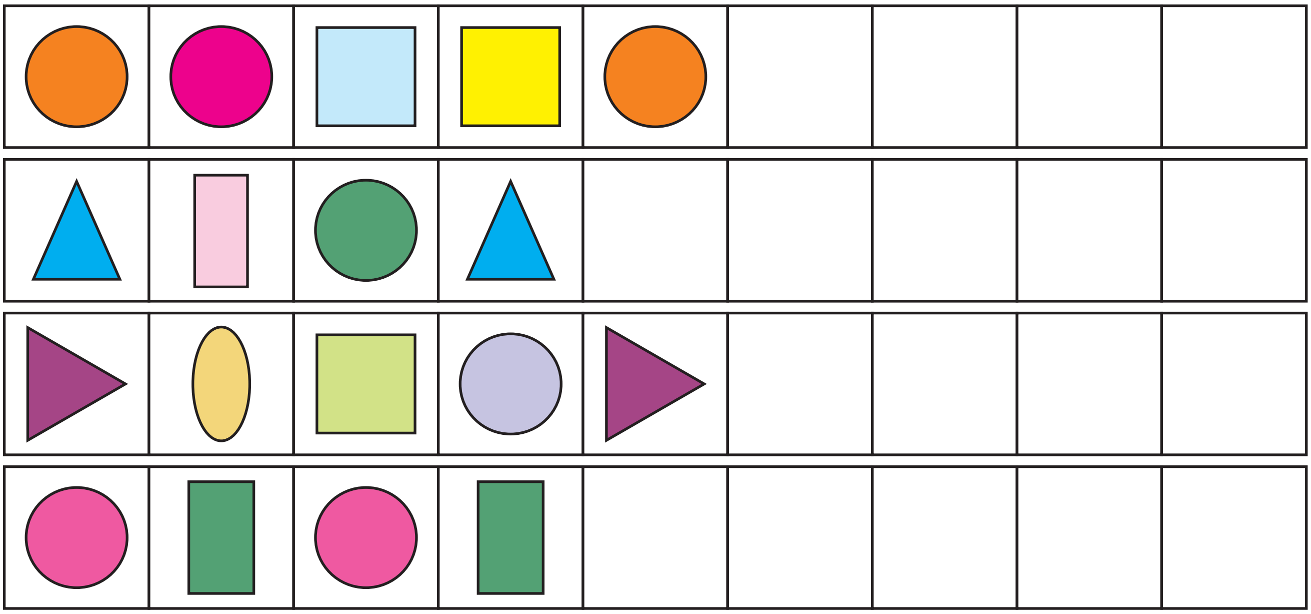
2. Colour the circles blue, the squares green, the rectangles yellow, the triangles red and the ovals black.



3. Match the objects with the similar shapes.



4. Draw and colour the shapes to complete each pattern.

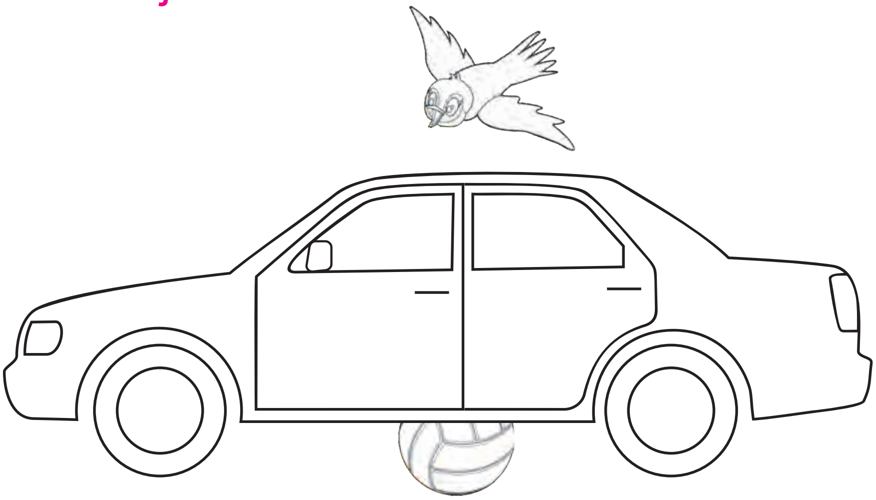


5. Look at the picture and tick (✓) the correct option.

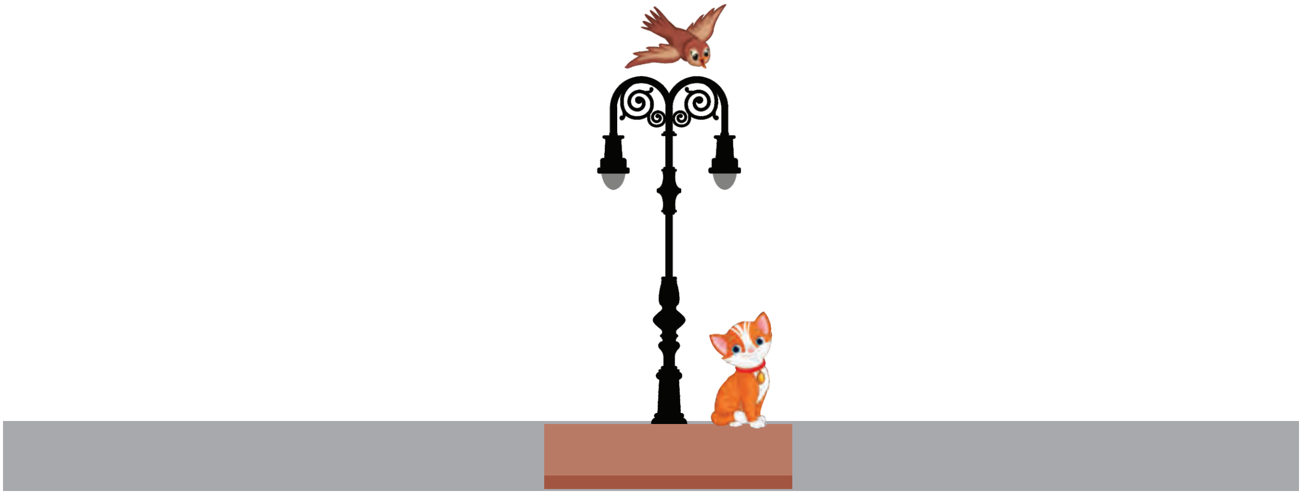
Where is Ahmed? outside ◯ inside ◯

Where is Zara? outside ◯ inside ◯

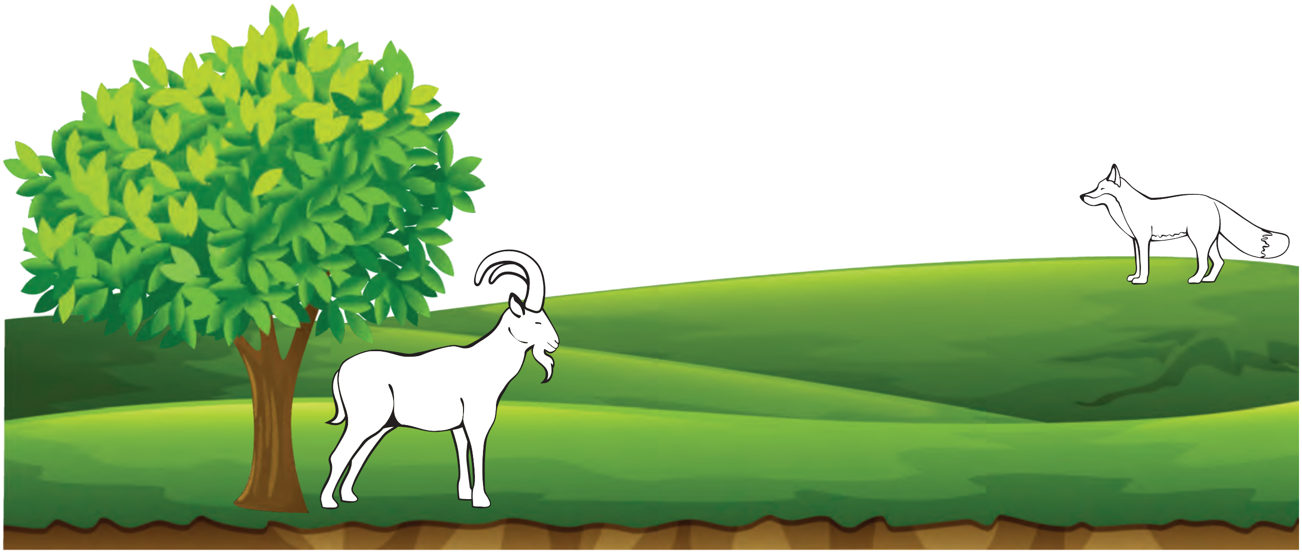
6. Colour the object that is under the car.



7. Encircle the object that is over the pole.



8. Colour the animal which is near the tree.

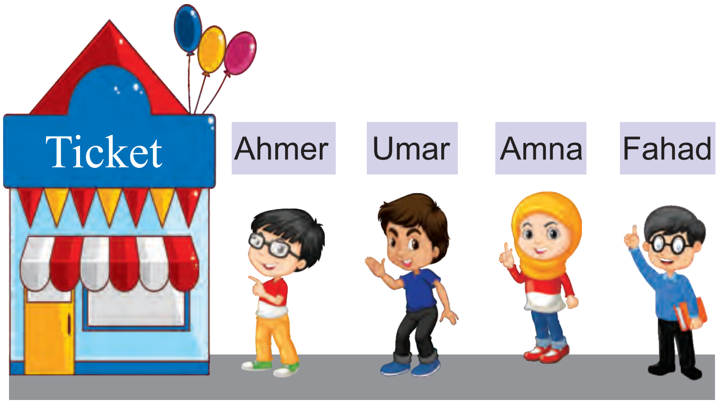


9. Some children are queuing up to get tickets.

Who is standing just after Amna? ____________

Who is standing just before Umar? ____________

Who is standing just after Ahmer? ____________



# قومی ترانہ

پاک سَرزمین شاد باد  کِشورِ حَسین شاد باد
تُو نشانِ عزمِ عالی شان  ارضِ پاکستان
مرکزِ یقین شاد باد
پاک سَرزمین کا نِظام  قُوّتِ اُخُوّتِ عوام
قوم ، مُلک ، سلطنت  پایندہ تابندہ باد
شاد باد منزلِ مُراد
پَرچمِ ستارہ و ہِلال  رہبرِ ترقّی و کمال
ترجمانِ ماضی، شانِ حال  جانِ اِستقبال
سایۂ خدائے ذُوالجلال

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